# European Preferred Parts List

**Issue: 23**
**Issue Date: 2013-06-21**

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | CH (Type II) | Ceramic dielectic, Fixed, high capacitance.<br>Cap.Range (uF) / Tol. (±%) / Rated Volt. (V) / Temp.Characteristic (%)<br>0.33 to 39 / 10/20 / 200 / ±20(Vt=0V),-50+30(Vt=Ur)<br>1.2 to 150 / 10/20 / 100 / ±20(Vt=0V),-50+30(Vt=Ur)<br>1.8 to 180 / 10/20 / 50 / ±20(Vt=0V),-50+30(Vt=Ur)<br>Size (max. mm.): 40.6 x 24 x 14.8 (Style L case)<br>Operating temperature range (°C.): -55 to +125 | ESCC 3001/030 | SMD | • AVX Ltd | |
| 1 | CNC 31 to 34 (NE, PE and PLE) | Ceramic dielectic, Fixed, high capacitance. Tolerance: 10, 20%.<br>Variants 01 to 16.<br>16V : 2.2 to 68 F<br>25V: 1.2 to 39 F | ESCC 3001/037 | DIL, SMD | • EUROFARAD | |
| 1 | CNC53 to CNC56 | Ceramic dielectic, Fixed, high capacitance. Tolerance: 10, 20%<br>Variants 01 to 04, 08 to 11, 15 to 18 and 22 to 25<br>All values 50V to 500V (as per detailed Spec) | ESCC 3001/038 | DIL, SMD | • EUROFARAD | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 0603, 0805, 1206, 1210, 1812, 2220 (TYPE I) | Ceramic chips, type I, low voltages<br>Type (size); Capacitance ranges (pF); Voltage (16, 25, 50, 100V). Variant 06<br>CEC14S (0603); 10-1000; 10-680; 1-560; 1-330<br>CEC2S (0805); 10-2700; 10-2200; 1-1800; 1-1200<br>CEC12S (1206); 10-6800; 10-6200; 1-5600; 1-3900<br>CEC4S (1210); 10-15000; 10-13000; 10-12000; 10-6800<br>CEC6S (1812); 100-33000; 100-30000; 100-22000; 100-12000<br>CEC7S (2220); 470-68000; 470-56000; 470-47000; 470-27000<br>Operating temperature range (°C.): -55 to +125 | ESCC 3009/003, /004, /005, /006, /022, /037 | CHIP | • EUROFARAD | |
| 1 | 0603, 0805, 1206, 1210, 1812, 2220 (TYPE II) | Ceramic chips, type II, low voltages<br>Type (size); Capacitance ranges (nF); Voltage (16, 25, 50, 100V). Variants 06 and 07<br>CNC14S (0603); 0,39-39; 0,39-33; 0,01-22; 0,01-12<br>CNC2S (0805); 6,8-220; 6,8-150; 0,1-100; 0,68-33<br>CNC12S (1206); 10-390; 10-270; 0,47-180; 0,47-120<br>CNC4S (1210); 33-820; 33-560; 2,2-390; 2,2-220<br>CNC6S (1812); 100-1800; 100-1200; 3,9-820; 3,9-470<br>CNC7S (2220); 150-3900; 150-2200; 22-1800; 22-1000<br>Operating temperature range (°C.): -55 to +125 | ESCC 3009/008, /009, /010, /011, /023, /038 | CHIP | • EUROFARAD | |
| 1 | 0805, 1206, 1210, 1812, 2220 (TYPE I) | Ceramic Dielectric, Multilayer, Fixed, Type I<br>Case; Capacitance Range(pF); Rated Volt(V); Case Size (max mm); Tolerances (%)<br>0805; 4.7 - 390; 50-100; 2.3 x 1.45 x 1.3; 0.5, 1, 2, 5 ,10<br>1206; 10 - 1000; 50-100; 3.6 x 1.9 x 1.8; 1, 2 , 5, 10<br>1210; 22 - 1500; 50-100; 3.6 x 2.8 x 1.8; 1, 2 , 5, 10<br>1812; 100 - 2700; 50-100; 5 x 3.6 x 1.8; 1, 2 , 5, 10<br>2220; 470 - 6800; 50-100; 6.2 x 5.5 x 1.8; 1, 2 , 5,10<br>(For appicable Exx Series and maximum capacitance value within each rated voltage and for each case size refer to Tables 1a of Detailed Specifications)<br>Variants 03 (AgPdPt Pads) and 06 (SnPb)<br>Temperature Coefficient (10-6/°C.): ± 30<br>Operating Temperature Range (°C.):-55 to +125 | ESCC 3009/003, /022, /004, /005, /006 | CHIP | • AVX - DIVISION TPC | Type I ranges modified, i.e. withdrawal of high end of range covered with ceramics under non-conformance through NCCS 2CTPC101 as decided during ESA / CNES Executive meeting held on the 6th of October 2011. Availability of a replacement ceramic expected by mid 2012. |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 0805, 1206, 1210, 1812, 2220 (TYPE II) | Ceramic Dielectric, Multilayer, Fixed, Type II<br>Case; Capacitance Range; Rated Volt(V); Case Size (max mm); Tolerances (%)<br>0805; 820pF - 100nF; 25-50-100; 2.3 x 1.45 x 1.3; 5, 10, 20<br>1206; 2.2nF - 220nF; 25-50-100; 3.6 x 1.9 x 1.8; 5, 10, 20<br>1210; 3.9nF - 470nF; 25-50-100; 3.6 x 2.8 x 1.8; 5, 10, 20<br>1812; 6.8nF - 1uF; 25-50-100; 5 x 3.6 x 1.8; 5, 10, 20<br>2220; 18nF - 2.2uF; 25-50-100; 6.2 x 5.5 x 1.8; 5, 10, 20<br>(For appicable Exx Series and maximum capacitance value within each rated voltage and for each case size refer to Tables 1a of Detailed Specifications)<br>Variants 03 (AgPdPt) and 06/07 (SnPb)<br>Temperature Coefficient (10-6/°C.): ± 30<br>Operating Temperature Range (°C.):-55 to +125 | 3009/008, /023, /009, /010, /011 | CHIP | • AVX - DIVISION TPC | Harmonization for Ceramic Cap. entries |
| 2 | 32101801 Type I | Ceramic Dielectric, Multilayer, Fixed, Type ICase Size Capacitance Range. Rated Volt. Case Size Tolerance (pF) (V)<br>(max mm) (%) 0805 10.0 - 1000 (E12 series) 50-100-200<br>2.3x1.55x1.3 1 1206 10.0 - 3300 (E12 series) 50-100-200<br>3.5x1.9x1.6 1 1210 10.0 - 6800 (E12 series) 50-100-200<br>3.5x2.8x1.8 1 1812 220 - 18000 (E12 series) 50-100-200<br>4.8x3.5x1.8 1 (For the maximum capacitance value within each rated voltage and for each case size refer to Table 2A of Detail Specification)Temperature Coefficient (10-6/°C.): ± 30 Operating Temperature Range | S02A 0100 | Chip | • SYFER TECHNOLOGY Ltd. | ## not recommended for new designs ## |
| 2 | 32101801 Type II | Ceramic Dielectric, Multilayer, Fixed, Type IICase Size Capacitance Range. Rated Volt. Case Size Tolerance (pF) (V)<br>(max mm) (%) 0805 100 - 47000 (E6 series) 50-100-200<br>2.3x1.55x1.3 10 1206 680 - 100000 (E6 series) 50-100-200<br>3.5x1.9x1.6 10 1210 1000 - 220000 (E6 series) 50-100-200<br>3.5x2.8x1.8 10 1812 3900 - 470000 (E6 series) 50-100-200<br>4.8x3.5x1.8 10(For the maximum capacitance value within each rated voltage and for each case size refer to Table 2A of Detail Specification)Temperature Coefficient (%): ± 20 (Vt= 0V), +20/-30 (Vt= nominal voltage)Operating Temperature | S02A 0100 | Chip | • SYFER TECHNOLOGY Ltd. | ## not recommended for new designs ## |
| 2 | Type II Dielectric BME ceramic capacitors 0603, 0805, 1206, 1210 and 1812 | Surface Mount Multilayer Chip Capacitors, manufactured using Base Metal Electrode (BME) technology.<br>Size (variant): Capacitance ranges (nF); Voltage (25, 50, 100V). Value Serie E12<br>0603 (01): 2.2-180; 2.2-150; 2.2-18<br>0805 (02): 2.2-1000; 2.2-470; 2.2-100<br>1206 (03): 18-2200; 18-1000; 18-390<br>1210 (04): 47-1000; 47-1000; 47-820<br>1812 (05): 150-8200; 150-4700; 150-2200<br>Capacitance Tolerance Values, 5%, 10%, 20%.<br>Operating temperature range (°C.): -55 to +125 | COL/ESA/PI-03 issue3 revB | 0603, 0805, 1206, 1210, 1812 | • AVX Ltd | |

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|---|---|---|---|---|---|---|
| 1 | CSS33 | Tantalum Solid Electrolyte<br>Capacitance Range (µF) / Tol. (±%) / Rated Volt. (V) / Case Size<br>1.2 to 39 / 10 / 50 / Case A, B, C, D<br>1.8 to 68 / 10 / 35 / Case B, C, D<br>2.7 to 180 / 10 / 20 / Case A, B, C, D<br>6.8 to 560 / 10 / 10 / Case A, B, C, D<br>Dimensions (max mm) : Case A : 10.72 x 3.84 DIA<br>Case B : 15.49 x 5.11 DIA<br>Case C : 20.88 x 7.75 DIA<br>Case D : 23.42 x 9.33 DIA<br>Operating temperature range (°C) : -55 to +125. | MIL-PRF-39003/10 | Axial | • KEMET ELECTRONICS Corp. | SEE QPL FOR FAILURE RATE C VALUES |
| 1 | CTC21 | Tantalum Solid Electrolyte<br>Capacitance range (µF) / Tol. (± %) / Rated Volt. (V) / Dimensions (max mm)<br>10 / 10 / 63 / 11.5 x 9.5 x 5<br>22 / 10 / 63 / 11.5 x 13 x 6<br>15 / 10 / 50 / 11.5 x 9.5 x 5<br>22 / 10 / 40 / 11.5 x 9.5 x 5<br>47 / 10 / 40 / 11.5 x 13 x 6<br>33 / 10 / 25 / 11.5 x 9.5 x 5<br>68 / 10 / 25 / 11.5 x 13 x 6<br>47 / 10 / 20 / 11.5 x 9.5 x 5<br>100 / 10 / 20 / 11.5 x 13 x 6<br>68 / 10 / 16 / 11.5 x 9.5 x 5<br>150 / 10 / 16 / 11.5 x 13 x 6<br>100 / 10 / 10 / 11.5 x 9.5 x 5<br>220 / 10 / 10 / 11.5 x 13 x 6<br>150 / 10 / 6.3 / 11.5 x 9.5 x 5<br>330 / 10 / 6.3 / 11.5 x 13 x 6<br>Operating temperature range (°C) : -55 to +125 | ESCC 3012/002 | SMD | • FIRADEC | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | CTC21E | Tantalum Solid Electrolyte<br>Capacitance range (µF) Tol. (± %) Rated Volt. (V) Dimensions (max mm)<br>22 10 50 11.5 x 9.5 x 5<br>47 10 50 11.5 x 13 x 6<br>33 10 40 11.5 x 9.5 x 5<br>68 10 40 11.5 x 13 x 6<br>47 10 25 11.5 x 9.5 x 5<br>100 10 25 11.5 x 13 x 6<br>100 10 20 11.5 x 9.5 x 5<br>220 10 20 11.5 x 13 x 6<br>150 10 16 11.5 x 9.5 x 5<br>330 10 16 11.5 x 13 x 6<br>220 10 10 11.5 x 9.5 x 5<br>470 10 10 11.5 x 13 x 6<br>330 10 6.3 11.5 x 9.5 x 5<br>680 10 6.3 11.5 x 13 x 6<br>Operating temperature range (°C) : -55 to +125 | ESCC 3012/003 | SMD | • FIRADEC | Bigger anodes require further attention during parts mounting |
| 1 | TAJ | Tantalum Solid Electrolyte<br>Capacitance value (µF) Tol. (±%) Rated Volt. (V) Case size<br>1.0 10 50 C<br>1.0 10 35 B<br>2.2 10 35 C<br>10 10 35 D<br>22 10 35 E<br>1.5 10 16 A<br>4.7 10 16 B<br>10 10 16 C<br>100 10 16 E<br>220 10 10 E<br>Size A (max mm) : 3.4 x 1.8 x 1.8 Size B (max mm) : 3.7 x 3.0 x 2.1<br>Size C (max mm) : 6.2 x 3.4 x 2.8 Size D (max mm) : 7.5 x 4.5 x 3.1<br>Size E (max mm) : 7.5 x 4.5 x 4.3<br>Gold plated termination.<br>Operating temperature range (°C) : -55 to +125 | ESCC 3012/001 | SMD | • AVX LTD | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | TES low ESR | Tantalum Solid Electrolyte, Low ESR<br>Capacitance value Rated Volt. (Case size)<br>(µF) (V)<br>1.0 25 (A)<br>4.7 16 (A)<br>4.7 50 (D)<br>10 10 (A)<br>10 35 (D)<br>22 6 (A)<br>33 20 (C)<br>33 25 (D)<br>33 35 (E)<br>47 25 (E)<br>100 16 (D)<br>150 16 (E)<br>220 10 (D)<br>330 6 (D)<br>330 10 (E)<br><br>Size A (max mm) : 3.2 x 1.6 x 1.6<br>Size B (max mm) : 3.5 x 2.8 x 1.9<br>Size C (max mm) : 6.0 x 3.2 x 2.6<br>Size D (max mm) : 7.3 x 4.3 x 2.9<br>Size E (max mm) : 7.3 x 4.3 x 4.1<br>Gold plated termination. Operating temperature range (°C) : -55 to +125 | Mfr DataSheet (6.0) + LAT and screening iaw ESCC 3012 | SMD | • AVX Czech Republic SRO | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | CT79 | Tubular, Porous, Tantalum Cathode and Anode, Gelled Electrolyte<br>Rated Voltage: 16 to 125 V<br>Capacitance range: as per Table 1(a) of Detail specification<br>Case sizes A, B, C and D<br>Operating temperature range: -55 to +125 °C | ESCC 3003/005 | Size A, B, C, D | • FIRADEC | |
| 2 | CT79, CT79E | Non-Solid Tantalum, gel<br>Rated Voltage 6.0 to 125 V<br>Capacitance range 2.7 to 2200 uF<br>Operating Temperature range: -55 to +125 °C | ESCC 3003/005 | A, B, C & D package style | • FIRADEC | Also available i.a.w. CCC specification 30202-801 |
| 2 | ST79 | Capacitors Fixed, Tubular, Porous Tantalum Cathode and Anode, gelled Electrolyte<br><br>Voltage (V) Capacitance (uF)<br><br>60 560<br>60 700<br>63 500<br>75 330<br>75 470<br>100 150<br>100 220<br><br>Tolerance: 10%<br>Case size: C (variant 04), D (variant 05)<br>Dimensions max. (mm): 34 (length), 10 (diam.)<br>Operating temperature range: -55 to +125 °C | ESCC 3003/006 | Axial | • FIRADEC | 125 V high capacitance values shall be avoided |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | HT86PS | Plastic Film Dielectric, High Voltage.<br>Cap. Range(nF) Tol.(±%) Rated Volt.(V)<br>0.68 to 15 10 20000<br>1.5 to 33 10 15000<br>3.3 to 68 10 12500<br>1.0 to 100 10 10000<br>2.2 to 220 10 7500<br>6.8 to 470 10 5000<br>15 to 1000 10 3500<br>15 to 1500 10 2500<br>33 to 2200 10 1500<br>Temperature Coefficient:<br>Temperature (°C.) Capacitance change (%)<br>+22 to -55 -3.0 min<br>+22 to +125 +10 max<br>Size (max mm):36x11x5 to 106x51x15 depending on Voltage/Capacitance Value<br>Operating Temperature Range (°C) : -55 to +125 | ESCC 3006/022 | Axial | • EUROFARAD | |
| 1 | PM94S | Self-healing metalised film dielectric<br>Capacitance Value (uF) Rated Voltage (V) Tolerance Available sizes<br>0.56 - 12 100 10 % 01, 02, 03, 04<br>0.22 - 4.7 250 10 % 01, 02, 03, 04<br>0.1 - 1.8 400 10 % 01, 02, 03, 04<br>Size 01 (max mm) : 10.7 x 10.7 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value)<br>Size 02 (max mm) : 15.5 x 11.5 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value)<br>Size 03 (max mm) : 16.5 x 15.5 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value)<br>Size 04 (max mm) : 18.5 x 17.0 x B (6, 8, 10, 12, 14, 15 mm depending on cap. value) | ESCC 3006/024 | SMD | • EUROFARAD | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 38999 Series I | Circular, Bayonet Coupling, Removable Crimp Contacts, scoop-proof, based on MIL-C-38999 Series I.<br>Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size #22.<br>3, 6, 10, 19, 26, 32, 41, 53, 61 contacts size #20.<br>Other arrangements with contact sizes: 16, 12, 8.<br>For contact sizes refer to ESCC 3401/058.<br>Receptacle and plug shell sizes:09,11,13,15,17,19,21,23,25.<br>Contact sizes Rating (A) Contact sizes Rating (A)<br>08 46.0 12 23.0<br>16 13.0 20 7.5<br>22 5.0<br>Operating Temperature Range (°C): -65 to +200 | ESCC 3401/052 | AS PER SPEC. | • SOURIAU | |
| 1 | 38999 Series II | Circular, Bayonet Coupling, Low Profile, Removable Crimp Contacts, Based on MIL-C-38999 Series II.<br>Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size #22.<br>3, 6, 10, 18, 26, 32, 41, 55, 61 contacts size #20.<br>Other arrangements with contact sizes: 20, 16, 12.<br>For contact sizes refer to ESCC 3401/045.<br>Receptacle and plug shell sizes:08,10,12,14,16,18,20,22,24.<br>Contact sizes Rating (A) Contact sizes Rating (A)<br>12 23.0 16 13.0<br>20 7.5 22 5.0<br>Operating Temperature Range (°C): -65 to +200 | ESCC 3401/044 | AS PER SPEC. | • SOURIAU | |
| 1 | 38999 Series III | Circular, Triple-start, Self Locking Coupling, Scoop-proof, Removable Crimp Contacts, based on MIL-C-38999 Series III<br>Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts #22<br>3, 6, 10, 19, 26, 32, 41, 53, 61 contacts #20<br>Other arrangements with contact sizes: 20, 16, 12, 8, 4.<br>For contact sizes refer to ESCC 3401/058, /066, /070.<br>Contact sizes Rating (A) Contact sizes Rating (A)<br>4 80.0 8 46.0<br>12 23.0 16 13.0<br>20 7.5 22 5.0<br>Operating Temperature Range (°C): -65 to +200 | ESCC 3401/056 | AS PER SPEC. | • SOURIAU | |
| 1 | 38999 SeriesIII Hermetic receptacle | Circular, Hermetic Receptacle, Scoop-proof, non-removable solder contacts, based on MIL-C-38999 Series III.<br>Range: 6, 13, 22, 37, 55, 66, 79, 100, 128 contacts size#22<br>3, 6, 10, 19, 26, 32, 41, 53, 61 contacts size#20<br>Contact size Rating (A) Contact size Rating (A)<br>20 7.5 22 5.0<br>Operating Temperature Range (°C): -65 to +200 | ESCC 3401/057 | AS PER SPEC. | • SOURIAU | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | D*M (Solder, PCB and Wire Wrap) | Rectangular, non removable solder bucket, PCB and wire-wrap contacts and removable coaxial and power contacts.<br>Range: 9, 15, 25, 37 and 50 contacts size# 20<br>15, 26, 44, 62 and 78 contacts size# 22<br>Coaxial Contact Arrangements: contact variants 01 to 20 (ITT Cannon).<br>Power Contact Arrangements: contact variants 01 to 12 (ITT Cannon).<br>Gold-plated non-magnetic shells<br>Contact size Rating (A) Contact size Rating (A)<br>20 7.5 22 3.0<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/001 | AS PER SPEC. | • C&K Components<br>• SOURIAU | Souriau is not qualified for Coaxial and Power Contacts |
| 1 | D*MA (Crimp) | Rectangular, removable crimp contact.<br>Range: 9, 15, 25, 37, 50 contacts size# 20<br>15, 26, 44, 62, 78 contacts size# 22<br>For contact sizes refer to ESCC 3401/005; for the corrisponding saver and for its own contacts refer to ESCC 3401/021 and ESCC 3401/020 respectively.<br>Gold-plated non-magnetic shells<br>Contact size Rating (A) Contact size Rating (A)<br>20 7.5(AWG 20to24) 20 3.0(AWG 26and28)<br>20 7.5(AWG 18and20) 22 5.0<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/002 | AS PER SPEC. | • C&K Components<br>• SOURIAU | |
| 1 | MTB | Single in line, microminiature.<br>Shell size: 5 through 81 contacts single in line<br>Terminations: Wire sizes AWG 26 and 28 and<br>AWG 25 uninsulated solid gold-plated wire<br>Rating (A): 2.5 with AWG 26 and uninsulated wire<br>1.5 with AWG 28<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/031 | AS PER SPEC. | • C&K Components | Supplied with uninsulated or already fitted wires; length of wires shall be specified by the orderer |

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|---|---|---|---|---|---|---|
| 1 | HE801/HPD | For PCB, removable contacts, crimp, wire-wrap, solder type, saver type.<br>Range: 2 rows: 17, 29, 41, 53, 65, 72, 84, 96, 120 contacts<br>3 rows: 62, 8 0, 98, 160 contacts<br>Contact Type: 3401/017 Crimp-type.<br>3401/018 Wire-wrap type.<br>3401/019 Solder/Saver type(wire sizes 22 to 26).<br>Rating (A): 5.0 (1 contact,AWG 22)<br>1.5 (>31 contacts,AWG 22)<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/016 | AS PER SPEC. | • HYPERTAC LTD<br>• HYPERTAC S.A. | |
| 1 | IHD INTERPOSER | PCB/PCB and PCB/MCM connections<br>Pad Size (min.) : 0,8 mm<br>Standard Pitch : 1.905 mm between contacts and 1.524 mm between rows<br>Standard Height : 7.8 mm<br>RFF contacts<br>Contact Resistance: <25 mohm<br>Nominal current: 1 A<br>Operating temperature range: -55 to +125 °C | ESCC 3401/076 | N/A | • HYPERTAC | |
| 1 | KMC | For PCB, non removable solder and wire wrap contacts and connector saver.<br>Range: 3 rows 26, 44, 62, 80, 98, 144 contacts<br>Contact Type: Solder and Wire-wrap for AWG 28 wires and PCB<br>Rating (A): 2.0 (1 to 3 used contacts),<br>0.9 (4 to 26 used contacts)<br>and 0.5 (over 27 used contacts)<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/039 | AS PER SPEC. | • HYPERTAC S.A. | |
| 1 | MHD | For PCB, non removable solder through board and surface mount contacts and connector saver.<br>Range: 4 rows 52, 100, 152, 200, 252, 300, 352 and 400 contacts<br>Contact Type: Solder through board and surface mount for PCB<br>Rating (A): 2.0 (1 to 3 used contacts),<br>0.9 (4 to 26 used contacts)<br>and 0.5 (over 27 used contacts)<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/065 | AS PER SPEC. | • HYPERTAC S.A. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | ACB1 | Triaxial databus connector for MIL-STD-1553 harnesses.<br>Bayonet & Thread coupling.<br>Plug and Bulkhead connector types.<br>Straight and Rightangle versions.<br>Frequency range: up to 1 MHz<br>Working Voltage: 200 Vrms<br>Rated Current (contact): 1A<br>Operating temperature range: -55 to +150 °C | ESCC 3401/079 | Coaxial | • AXON'CABLE | |
| 2 | RF-Coaxial connectors and adapters; Serie SMA | RF coaxial, 50 ohms, for transmitting RF-Signals and data3402/001 male contacts (plug), 3402/002 female contacts (receptacle), 3402/003 adapters. Crimp or solder contacts for flexible and semi-rigid cables, contacts for micro-strip, bulkhead connectors, PCB connectorsTypes covered by similarity: hermetically sealed receptacle; Amagnetic stainless steel; Operating temperature range as per det. Spec. | 3402/001,<br>3402/002,<br>3402/003 | | • ROSENBERGER | |
| 1 | SMA | RF coaxial, 50 ohms.<br>3402/001 male contacts (plug), 3402/002 female contacts (receptacle), 3402/003 adapters.<br>Crimp or solder contacts for flexible and semi-rigid cables, contacts for micro-strip.<br>Types coverede by similarity :<br>hermetically sealed receptacle;<br>Amagnetic stainless steel;<br>Operating temperature range as per det. Spec. | ESCC 3402/001<br>ESCC 3402/002<br>ESCC 3402/003 | AS PER SPEC. | • RADIALL | |
| 1 | SMA 2.9 | RF coaxial, 50 ohms, DC to 40 GHz<br>3402/021 male contacts (plug)<br>3402/022 female contacts (receptacle)<br>3402/023 adapters and connecting pieces<br><br>Type variants as per Table 1(a) of Detail Specifications<br>Operating temperature range: -65 / +165 °c | ESCC 3402/021<br>ESCC 3402/022<br>ESCC 3402/023 | AS PER SPEC. | • RADIALL | |
| 2 | SMA 2.92 | RF coaxial, 50 ohms, DC to 40 GHz 3402/021 male contacts (plug), 3402/022 female contacts (receptacle), 3402/023 adapters and connecting pieces Type variants as per Table 1(a) of Detail Specifications Operating temperature range: -65 / +165 °C | 3402/021,<br>3402/022,<br>3402/023 | | • ROSENBERGER | |
| 2 | SMP | RF Coaxial Connectors, 50 ohms, adaptor and connecting pieces<br>Frequency limit up to 20 GHz<br>Variant 01: limited detent receptacle for PCB CMS (pin contact)<br>Variant 02: straight female-female adapter (10.3 mm)<br>Variant 03: straight female-female adapter (5.69 mm)<br>Variant 04: right angle receptacle for PCB, limited detent, solder type (pin contact)<br><br>Operating temperature range: -65 / +165 °C | RAD-DET-CONN-019 | AS PER SPEC. | • RADIALL | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | TNC | RF coaxial type TNC connectors male or female contact and adptators 50W<br>Max working voltage : 500Vrms, power : 75-120W, frequency : 0-18GHz<br>Operating temperature range: -55 to +105 °C | ESCC 3402/008-009-010 | TNC connector | • RADIALL | |
| 2 | TNC | Coaxial connectors and adapters; Series TNCRF-Coaxial connectors 50 Ohm for transmitting RF-Signals and dataTransmitting of high power RF-Signals up to 18 Ghz, contacts for cable, bulkhead, PCB, … | ESCC 3402/008, ESCC 3402/009, ESCC 3402/010 | | • ROSENBERGER | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | MDM | Rectangular, non removable wired contacts<br>Range: 9, 15, 21, 25, 31, 37, 51 contacts size.<br>Terminations: Wire sizes AWG 26 and 28 and<br>AWG 25 uninsulated solid gold-plated wire<br>Rating (A): 2.5 with AWG 26 and uninsulated wire<br>1.5 with AWG 28<br>Nickel Plated Shells<br>For the corrisponding saver refer to ESCC 3401/041.<br>Operating Temperature Range (°C): -55 to +125 | ESCC 3401/029 | AS PER SPEC. | • C&K Components | Supplied with uninsulated or already fitted wires; length of wires shall be specified by the orderer |
| 2 | MDSA | Rectangular, non removable wired contacts<br>Range: 9, 15, 21, 25, 31, 37, 51 contacts size.<br>Terminations:<br>Single wire ESCC/3901/013 variant 01 (AWG28)<br>Single wire ESCC/3901/013 variant 02 (AWG26)<br>Single wire ESCC/3901/002 variant 61 (AWG28)<br>Single wire ESCC/3901/002 variant 56 (AWG26)<br>Rating (A): 2.5 with AWG 26 and uninsulated wire<br>1.5 with AWG 28 Nickel or Gold Plated Shells<br>For the corrisponding saver refer to ESCC 3401/041.<br>Operating Temperature Range (°C): -55 to +125 | Axon 05039-ST-01 Issue C | AS PER SPEC. | • AXON'CABLE | |
| 2 | Micro Comp | Electrical, rectangular, composite microminiature<br>Operating temperature Range: 0 to +175 °C | 8MC/001, 8MC/002, 8MC/003, 8MC/004 | MICROMINIATURE | • SOURIAU | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | D*J | Filtered, rectangular, non-removable solder bucket contacts, filtering.<br>Range: 9, 15, 25, 37, 50 contacts<br>Filter type M (medium frequency) only<br>Solder buckets terminations<br>Rated Current: 5 Adc<br>Operating Temperature Range (C): -55 to +125 | CSFR 165 | AS PER SPEC. | • C&K Components | New component |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | T1507 | Crystal units in metal holder<br>Frequency Range: 2,5 - 20 MHz<br>Operating temperature range depending on type variant | ESCC 3501/019 | TO8 CAN | • KVG Quartz Crystal Technology | |
| 1 | T1507 | Crystal units in metal holder<br>Frequency Range: 3 - 20 MHz<br>Operating temperature range depending on type variant | ESCC 3501/019 | TO8 CAN | • Rakon France | |
| 2 | T807 | Crystal units in metal holder<br>Frequency Range: 4 - 140 MHz<br>Operating temperature range depending on type variant | ESCC 3501 /018 | TO5 CAN | • KVG Quartz Crystal Technology | |
| 1 | T807 | Crystal units in metal holder<br>Frequency Range: 14 - 140 MHz<br>Operating temperature range depending on type variant | ESCC 3501/018 | TO5 CAN | • Rakon France | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BAY6642 (ES) | Diode, Switching<br>Breakdown Voltage V_BR = 100 V<br>Working Peak Reverse Voltage VRWM (V) = 75 V<br>Weight max 0.06 g<br>Forward Surge Current IFSM = 2.5 A (pk) @ T_amb = 25°C<br>T_rr= 4 ns<br>V_RWM = 75 V_pk<br>I_R @ V_RWM = 100 µA<br>C = 2.5 pF | ESCC 51 | 5101/029 | • INFINEON TECHNOLOGIES A.G. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 1N5416 thru 1N5418, 1N5420 | Silicon, Power Rectifier, Fast Recovery.<br>DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0<br>DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600.<br>Switching time (ns): 150 (400 for 1N5420);<br>IFSM=80 A (pk); Io=3.0 A (t=55°C.)<br>Operating Temperature range (°C.): -65 to +175. | MIL-S-19500/411 | AXIAL | • Sensitron Semiconductor Inc. | Sensitron spec. 7700-4091 for JANS-equivalent screening flow |
| 1 | 1N5416, 1N5417, 1N5418, 1N5420 | Silicon, Power Rectifier, Fast Recovery.<br>DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0<br>DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600.<br>Switching time (ns): 150 (400 for 1N5420); IFSM=80 A (pk); Io=2.0 A (t=55°C.)<br>Operating Temperature range (°C.): -65 to +175. | MIL-PRF-19500/411 | A248 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 2 | 1N5416US thru 1N5418US, 1N5420US | Silicon, Power Rectifier, Fast Recovery. DC forward voltage (max V): 1.5 @ DC forward current (pk A): 9.0 DC reverse current (max µA): 1.0 @ DC reverse voltage (V):100,200,400,600. Switching time (ns): 150 (400 for 1N5420US); IFSM=80 A (pk); Io=3.0 A (t=55°C.) Operating Temperature range (°C.): -65 to +175. | MIL-PRF-19500/411 | MELF | • Sensitron Semiconductor Inc. | |
| 2 | 1N5550, 1N5552, 1N5554 | Silicon, Power Rectifier, General Purpose.<br>DC forward voltage(max V):1.2(1.3 for 1N5554) @DC forward current(pk A):9.0<br>DC reverse current(max µA):1.0 @ DC reverse voltage (V): 200, 600, 1000<br>Switching time (ns): 2000; IFSM= 100 A (pk); Io= 3.0 A (t=55°C.)<br>Operating Temperature range (°C.): -65 to +175. | MIL-PRF-19500/420 | A1 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 1 | 1N5614, 1N5616, 1N5618 | Silicon, Power Rectifier<br>DC forward voltage (max V): 1.3 @ DC forward current (pk A): 3.0*<br>DC reverse current (max Ã¦A): 0.5 @ DC reverse voltage (V): 200, 400, 600<br>Switching time (ns): 2000; IFSM= 30 A (pk); Io= 1 A (t=55°C.)<br>Operating Temperature range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/427 | A248 | • MICROSEMI SCOTTSDALE | manufacturer Standardization |
| 2 | 1N5615, 1N5617(A/UN ),1N5619, 1N5623 | Silicon, Power Rectifier, Fast Recovery.<br>DC forward voltage (max V): 1.6 @ DC forward current (pk A): 3.0*<br>DC reverse current (max µA): 1.0 @ DC reverse voltage (V): 200, 600, 1000<br>Switching time (ns): 150, 250, 500 respectively<br>IFSM= 25 A (pk); Io= 1 A (t=55°C.)<br>Operating Temperature Range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/429 | A248 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 1 | 1N5806U | Silicon, Power Rectifier, Switching.<br>DC forward voltage (max V): 0.875 @ DC forward current (pk A): 1.0<br>DC reverse current (max uA): 1.0 @ DC reverse voltage (V):150.<br>Switching time (ns): 25; IFSM=35 A (pk); Io=1.0 A (t=55°C.)<br>Operating Temperature range (°C.): -55 to +125. | ESCC 5101/014 | LCC2-A | • STMicroelectronics | |
| 2 | 1N5806US | Silicon, Fast Recovery, Power Rectifier.<br>DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0*<br>DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150<br>Switching time (ns): 25, 30 respectively<br>IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively.<br>Operating Temperature Range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/477 | D-5A | • Sensitron Semiconductor Inc. | Manufacturer Standardization. Moved to EPPL part II |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 1N5806US | Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/477 | D-5A | • MICROSEMI SCOTTSDALE | - |
| 1 | 1N5811U | Silicon, Power Rectifier, Switching.<br>DC forward voltage (max V): 0.875 @ DC forward current (pk A): 4.0<br>DC reverse current (max uA): 5.0 @ DC reverse voltage (V):150.<br>Switching time (ns): 30; IFSM=125 A (pk); Io=6.0 A (t=55°C.)<br>Operating Temperature range (°C.): -55 to +125. | ESCC 5101/013 | LCC2-B | • STMicroelectronics | |
| 2 | 1N5811US | Silicon, Fast Recovery, Power Rectifier.<br>DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0*<br>DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150<br>Switching time (ns): 25, 30 respectively<br>IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively.<br>Operating Temperature Range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/477 | D-5B | • Sensitron Semiconductor Inc. | Manufacturer Specification |
| 2 | 1N5811US | Silicon, Fast Recovery, Power Rectifier. DC forward voltage (max V):0.975,0.925 @DC forward current (pk A):2.5,6.0* DC reverse current (max µA): 1.0, 5.0 @DC reverse voltage (V): 150 Switching time (ns): 25, 30 respectively IFSM= 35, 125 A (pk); Io= 1.0, 3.0 respectively. Operating Temperature Range (°C.): -65 to +175. * pulsed | MIL-PRF-19500/477 | D-5B | • MICROSEMI SCOTTSDALE | - |
| 1 | 1N5819U | Silicon, Power Rectifier, Schottky.<br>DC forward voltage (max V): 0.55 @ DC forward current (pk A): 1.0<br>DC reverse current (max uA): 25.0 @ DC reverse voltage (V):40.<br>IFSM=50 A (pk); Io=1.0 A (t=55°C.)<br>Operating Temperature range (°C.): -55 to +125ºC | ESCC 5106/021 | LCC2-B | • STMicroelectronics | Change to EPPL part I |
| 2 | 1N5819UR-1 | Silicon, Hermetic, Schottky barrier.<br>DC forward voltage (max V): 0.8 @max. forward current 3.1 A (pulsed)<br>IFSM= 24 A(pk); Io= 1.0 A at Tec= +55°C.<br>Operating Temperature Range (°C.): -65 to +125 | MIL-PRF-19500/586 | DO-213AB | • MICROSEMI LAWRENCE | Manufacturer Specification. Moved to EPPL II |
| 1 | 1N5822U | Silicon, Rectifier, Schottky barrier.<br>DC forward voltage (max V): 0.7 @max. forward current 9.4 A* (pk)<br>IFSM= 80 A(pk); Io= 3.0 A at Tec=+55°C.<br>Operating Temperature Range (°C.): -55 to +125 *pulsed | ESCC 5106/020 | LCC2-B | • STMicroelectronics | Change to EPPL part I |
| 2 | 1N5822US | Silicon, Rectifier, Schottky barrier.<br>DC forward voltage (max V): 0.7 @max. forward current 9.4 A* (pk)<br>IFSM= 80 A(pk); Io= 3.0 A at Tec=+55°C.<br>Operating Temperature Range (°C.): -65 to +150 *pulsed | MIL-PRF-19500/620 | D-5B | • MICROSEMI LAWRENCE | Manufacturer Standardization. Moved to EPPL II |
| 1 | BYV52-200 | Single, Ultra Fast Power Rectifier, 200 V, 30 A<br>Operating Temperature range : -55 to +150 °C<br>Storage Temperature Range : -55 to +150 °C<br>Dimensions (mm, max.) : 20.07 x 13.59 x 6.3 | ESCC 5103/030 | TO254 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BYV54-200 | Single, Ultra Fast Power Rectifier, 200 V, 60 A<br>Operating Temperature range : -55 to +150 °C<br>Storage Temperature Range : -55 to +150 °C<br>Dimensions (mm, max.) : 20.07 x 13.59 x 6.3 | ESCC 5103/031 | TO254-AA | • STMicroelectronics | |
| 1 | BYW81-200 | Dual, Ultra Fast Power Rectifier200 V, 2x15 A<br>Operating Temperature range : -55 to +150 °C<br>Storage Temperature Range : -55 to +150 °C<br>Available in Common Anode, Common Cathode and Doubler configuration<br>Dimensions (mm, max.) : 20.07 x 13.59 x 6.3 | ESCC 5103/029 | SMD .5 | • STMicroelectronics | |
| 1 | STPS20H100 | Dual, Power Schottky, 100 V, 2x20 A<br>Operating Temperature Range : -55 to +175 °C<br>Storage Temperature Range : -55 to +175 °C<br>Available in Common Anode, Common Cathode and Doubler configuration<br>Dimensions (mm, max.) : 20.07 x 13.59 x 6.3 | ESCC 5106/016 | SMD .5 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 1N4099UR-1 thru 1N4135UR-1 | Silicon, Voltage regulator, Low noise.<br>DC forward voltage (max V): 1.1 @max. forward current : 200 mA<br>Regulator voltage (nom V): 6.8 to 100 @Iz=250 uA dc<br>Voltage tolerance: ± 5% Power (W): 0.5 at Tec= 125°C.<br>Operating Temperature Range (°C.): -65 to +175 | MIL-PRF-19500/435 | DO-213AA | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 1N4464 thru 1N4496 | Silicon, Voltage Regulator.<br>DC forward voltage (max V): 1.5 @max. forward current : 1 A<br>Nominal Zener volt. (V): 9.1 - 200 @ Nom. Iz (mA): 28.0 - 1.2<br>Zener tolerance (V): 0.35 - 10.0 Power (W): 1.5<br>Operating Temperature Range (°C.): -55 to +175 | MIL-PRF-19500/406 | A1 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 1 | 1N4954 thru 1N4992 | Silicon, Voltage Regulator.<br>DC forward voltage (max V): 1.5 @max. forward current : 1 A<br>Nominal Zener volt. (V): 6.8 - 270 @ Nom. Iz (mA): 175.0 - 5.0<br>Voltage Regulation (V): 0.7 - 25.0 Power (W): 5.0 at Tl= +65°C.<br>Operating Temperature Range (°C.): -55 to +175 | MIL-PRF-19500/356 | A248 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 1 | 1N6309 thru 1N6319 | Silicon, Zener, Voltage regulator, Solid glass noncavity constr.<br>DC forward voltage(max V):1.4 @max If = 1 A* dc<br>Nom. Vz (V): 2.4 to 6.2 @ Nom. Iz (mA): 20<br>Zener tolerance: ± 5% Power (W): 0.5 at Tl=+75°C.<br>Operating Temperature Range (°C.): -65 to +175 *pulsed | MIL-PRF-19500/533 | DO-35 | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 1N6309US thru 1N6319US | Silicon, Zener, Voltage regulator, Solid glass noncavity constr.<br>DC forward voltage(max V):1.4 @max If = 1 A* dc<br>Nom. Vz (V): 2.4 to 6.2 @ Nom. Iz (mA): 20<br>Zener tolerance: ± 5% Power (W): 0.5 at Tec=+125°C.<br>Operating Temperature Range (°C.): -65 to +175 *pulsed | MIL-PRF-19500/533 | SMD | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 1N6320 thru 1N6336 | Silicon, Zener, Voltage Regulator, Solid glass noncavity constr.<br>DC forward voltage (max V): 1.4 @max. forward current : 1 A* dc<br>Nominal Zener volt. (V): 6.8 - 33.0 @ Nom. Iz (mA): 20.0 - 3.8<br>Zener tolerance: ± 5% Power (W): 0.5 at Tl= +75°C.<br>Operating Temperature Range (°C.): -65 to +175 *pulsed | MIL-PRF-19500/533 | DO-204 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 1 | 1N6320US thru 1N6336US | Silicon, Zener, Voltage Regulator, Solid glass noncavity constr.<br>DC forward voltage (max V): 1.4 @max. forward current : 1 A* dc<br>Nominal Zener volt. (V): 6.8 - 33.0 @ Nom. Iz (mA): 20.0 - 3.8<br>Zener tolerance: ± 5% Power (W): 0.5 at Tl= +75°C.<br>Operating Temperature Range (°C.): -65 to +175 *pulsed | MIL-PRF-19500/533 | MELF | • MICROSEMI SANTA ANA | Manufacturer Standardization |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 1N4568AUR-1 | Silicon, Low level, Voltage-reference.<br>Nominal Zener Voltage (V): 6.4 @max. forward current (mA): 0.5±0.01 to 4.0±0.01<br>Zener tolerance: ±5% Power (W): 0.475 at Ta=+25°C.<br>Operating Temperature Range (°C.): -65 to +175 | MIL-PRF-19500/452 | DO-213AA | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 1N4614UR-1 thru 1N4627UR-1 | Silicon, Low-noise Voltage regulator.<br>DC forward voltage (max V): 1.1 @max. forward current 200 mA dc<br>Regulator voltage (max V): 1.8 to 6.2 @Iz= 250 uA<br>Voltage tolerance: ±5% Power (W): 0.5 at Tec=+125°C.<br>Operating Temperature Range (°C.): -65 to +175 | MIL-S-19500/435 | DO-213AA | • MICROSEMI LAWRENCE | Manufacturer Standardization |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BAS 70 | Microwave, Silicon, Schottky, General purpose.<br>DC reverse volt. (min V): -70 @Ir= 10 uA<br>Reverse current (max nA): 100 @Vr= -56 V<br>Forward voltage (max V): 1.0 @If= 15 mA IFSM= 85 mA (pk)<br>Total Capacitance CT (pF): 1.2 / 2.0 (BAS 70-094 single diode)<br>0.08 (BAS 70-B bridge)<br>Package (max mm): BAS 70-094 DIA 1.45 x 1.35 x 1.95 (T1 package)<br>BAS 70-B 3.60 x 3.60 x 1.60 (HPAC-140 package)<br>Operating Temperature Range (°C.): -55 to +150 | ESCC 5512/020 | HPAC-140 or T1 | • INFINEON TECHNOLOGIES A.G. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 1N5629A thru 1N5665A | Silicon, transient voltage suppressor.<br>DC reverse current (max uA):1000 to 5 @Vr =5.8 to 171<br>Vbr (min/max V): 6.45/7.14 to 190/210 @Ibr=10 to 1<br>Power (W): 1.0<br>Operating Temperature Range (°C.): -55 to +175 | MIL-PRF-19500/500 | DO-13 | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |
| 2 | 1N6124A | Silicon, bipolar transient voltage suppressor.<br>Reverse current leakage (max uA): 1 @Vr=27.4 to 152<br>Breakdown voltage (min V):53 @Ibr(mA)=30 to 5<br>Power (W): 2.0<br>Peak Power (W): 500 for 1 ms<br>Operating Temperature Range (°C.): -55 to +175 | MIL-PRF-19500/516 | E (MSCUA Outline) | • MICROSEMI SCOTTSDALE | Manufacturer Standardization |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | DH 252, DH 256, DH 267, DH 292, DH294 | Microwave, Silicon, Multiplier varactor.<br>Min. Breakdown voltage (V):-45,-40,-30,-20,-15 @ Ir= 10 uA max.<br>Reverse Current (nA): 20 @ Vr= -10V<br>Max. Forward Voltage (V): 0.9 @ If= 10 mA<br>Max. Total Capacitance (pF): 0.5 to 7.2<br>Min. Carrier Lifetime (ns): 6 to 125 @ If= 10 mA and Ir=6.0 mA<br>Max. Snap-off Time (ps): 60 to 400 @ If= 10 mA and Vf= 10 V<br>Max. R.F. Power Dissipation (W): 0.5 to 1.25<br>Operating Temperature Range (°C.): -55 to +150 | ESCC 5512/016 | AS PER SPEC. | • CHELTON TELECOM & MICROWAVE | |
| 1 | DH76010 thru DH760150 | Microwave, Silicon, Tuning varactor, Hyper Abrupt<br>Max. Reverse current (µA) : 10 @ Vr = -20 V.<br>Max Forward voltage (V) : 1 @ If = 10 mA<br>Max Total Capacitance (pF) : 0,9 - 18,30 @ Vr = -4 V, 1 MHz<br>Min. Quality Factor : 100 - 4 @ Vr = -4 V, 1 GHz<br>Operating Temperature Range (°C) : -55 to +150 | ESCC 5512/023 | M208, F27D, F30 | • CHELTON TELECOM & MICROWAVE | |
| 1 | ML4310 to ML4319 | Microwave, Silicon, Tuning varactor<br>Reverse current (max uA): 10 @Vr=-25V<br>Forward voltage (max V): 1.0 @If= 100 mA<br>Total Capacitance (max pF): 0.55 - 5.4<br>Quality Factor (min Q): 2750 - 1500<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5512/003 | AS PER SPEC. | • Cobham Mal Ltd. | |
| 1 | ML4331 to ML4335 | Microwave, Silicon, Tuning varactor<br>Reverse current (max uA): 10 @Vr=-40V<br>Forward voltage (max V): 1.0 @If= 100 mA<br>Total Capacitance (max pF): 0.79 - 2.60<br>Quality Factor (min Q): 2000 - 1350<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5512/004 | AS PER SPEC. | • Cobham Mal Ltd. | |
| 1 | ML4336 to ML4343 | Microwave, Silicon, Tuning varactor<br>Reverse current (max uA): 10 @Vr=-40V<br>Forward voltage (max V): 1.0 @If= 100 mA<br>Total Capacitance (max pF): 3.05 - 11.40<br>Quality Factor (min Q): 1350 - 800<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5512/005 | AS PER SPEC. | • Cobham Mal Ltd. | |
| 1 | ML4355 to ML4365 | Microwave, Silicon, Tuning varactor<br>Reverse current (max uA): 10 @Vr=-60V<br>Forward voltage (max V): 1.0 @If= 100 mA<br>Total Capacitance (max pF): 2.45 - 17.10<br>Quality Factor (min Q): 850 - 500<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5512/007 | AS PER SPEC. | • Cobham Mal Ltd. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BXY42-MESA | Microwave, Silicon, PIN.<br>Reverse current (max uA): 10 @Vr=-50V<br>Forward voltage (max V): 1.1 @If= 100 mA<br>Total Capacitance (max pF): 0.24<br>RF power (W): 0.35 (Var.-01), 0.60 (Var.-02).<br>Minor. carrier life time (min ns): 35 @If= 10 mA<br>Package (max mm): DIA 1.45 x 1.95 x 1.35 variant 01<br>DIA 1.45 x 1.35 variant 02<br>Operating Temperature Range (°C.): -55 to +175 | ESCC 5513/017 | T, T1 | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BXY43/44 | Microwave, Silicon, PIN.<br>Reverse current (max nA): 100 @Vr=-150V (Var.-01 to -04)<br>@Vr=-200V (Var.-05 to -08)<br>Forward voltage (max V): 1.0 (Var.-01 to -04) @If= 100mA<br>1.05 (Var.-05 to -08) @If= 100mA<br>Total Capacitance Range (pF): 0/0.35 - 0.40/0.85<br>Power Dissipation (W): 0.5<br>Operating Temperature Range (°C.): -55 to +150 | ESCC 5513/030 | T, T1, Teller, Pill, FlatPack | • INFINEON TECHNOLOGIES A.G. | |
| 1 | DH50151 thru DH50157 | RF/MW PIN, Ultra Fast Switching, VR=-150 V.<br>Variants 01 to 49 of detail spec. | ESCC 5513/031 | M208, F27D | • CHELTON TELECOM & MICROWAVE | |
| 1 | DH50201 thru DH50209 | RF/MW PIN, Ultra Fast Switching, VR=-200 V.<br>Variants 01 to 63 of detail spec. | ESCC 5513/033 | M208, F27D | • CHELTON TELECOM & MICROWAVE | |
| 1 | DH50251 thru DH50256 | RF/MW PIN, Ultra Fast Switching, VR=-250 V.<br>Variants 01 to 36 of detail spec. | ESCC 5513/034 | M208, F27D | • CHELTON TELECOM & MICROWAVE | |
| 1 | ML4610, 4617, 4618, 4619 | Microwave, Silicon, PIN, Fast switching.<br>Reverse current (max uA): 10 @Vr=-15V (Var.-01 to -25)<br>@Vr=-100V (Var.-26 to -99)<br>Forward voltage (max V): 1.0 @If= 100mA<br>Total Capacitance Range (max pF): 0.2 - 1.20<br>Minority Carrier Lifetime (max ns): 35 @If= 10mA (Var.-01 to -25)<br>400 @If= 10mA (Var.-26 to -99)<br>R.F. Power Dissipation (W): 0.2 to 3.1<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5513/009 | AS PER SPEC. | • Cobham Mal Ltd. | |
| 1 | ML4622 to ML4624 | Microwave, Silicon, PIN, Fast switching.<br>Reverse current (max uA): 10 @Vr=-150V<br>Forward voltage (max V): 1.3 @If= 100mA<br>Total Capacitance Range (max pF): 0.3 - 1.20<br>Minority Carrier Lifetime (max ns): 700 @If= 4.5 mA<br>R.F. Power Dissipation (W): 0.2 to 3.5<br>Operating Temperature Range (°C.): -65 to +125 (Variant -24, -48 and -62)<br>-65 to +150 | ESCC 5513/014 | AS PER SPEC. | • Cobham Mal Ltd. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | ML4627 to ML4629 | Microwave, Silicon, PIN, Fast switching.<br>Reverse current (max uA): 10 @Vr=-200V<br>Forward voltage (max V): 1.3 @If= 100mA<br>Total Capacitance Range (max pF): 0.2 - 1.20<br>Minority Carrier Lifetime (max ns): 1200 @If= 4.5 mA<br>R.F. Power Dissipation (W): 0.2 to 4.1<br>Operating Temperature Range (°C.): -65 to +125 (Variant -24, -48 and -62)<br>-65 to +150 | ESCC 5513/015 | AS PER SPEC. | • Cobham Mal Ltd. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | SFC 030 | C Filter - Electromagnetic interference suppression, hermetically sealed.<br>Capacitance Range (pF): 470 to 22000<br>Rated Voltage (V): 25 to 250<br>Rated DC Current (A): 1.0 to 5.0<br>Insertion Loss (dB) @ 1GHz: 34 to 68<br>Size (max mm): DIA 4.10 x 16.90<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/020 | Axial | • EUROFARAD | |
| 1 | SFC 60 | C Filter - Electromagnetic interference suppression, hermetically (SCC 3008/026) and non-hermetically (SCC 3008/033) sealed.<br>Capacitance Range (pF): 680 to 220000<br>Rated Voltage (V): 25 to 200<br>Rated DC Current (A): 10<br>Insertion Loss (dB) @ 1GHz: 37 to 70<br>Size (max mm): DIA 6 x 20 (hermetically sealed)<br>Size (max mm): DIA 6 x 32 (non-hermetically sealed)<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/026 - 3008/033 | Axial | • EUROFARAD | |
| 1 | SFL 100 | L Filter - Electromagnetic interference suppression, hermetically sealed<br>Capacitance Range (uF): 0.0176 to 1.6<br>Rated Voltage (V): 40 to 300<br>Rated DC Current (A): 5, 10, 15<br>Insertion Loss (dB) @ 1GHz: 57 to 70<br>Size (max mm) : DIA 9.90 x 27.30<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/029 | Axial | • EUROFARAD | |
| 1 | SFP 035 | Pi Filter - Electromagnetic interference suppression, non hermetically sealed.<br>Capacitance Range (pF): 3520 to 35200<br>Rated Voltage (V): 35 to 200<br>Rated DC Current (A): 10<br>Insertion loss (dB) @ 1GHz: 50/55 to 70/70 (*)<br>(*) With no current applied / With current applied<br>Size (max mm): DIA 4.1 x 25<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/025 | Axial | • EUROFARAD | |
| 1 | SFP 040 | Pi Filter - Electromagnetic interference suppression, non hermetically sealed.<br>Capacitance Range(pF): 750 to 44800<br>Rated Voltage (V): 100,200,250<br>Rated DC Current (A): 10 (DC/LF)<br>Insertion loss (dB) @ 1GHz: 40/35 to 75/75 (*)<br>(*) With no current applied / With current applied<br>Size (max mm): DIA 5 x 31<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/014 | Axial | • EUROFARAD | |
| 1 | SFP 060 | Pi Filter - Electromagnetic interference suppression, hermetically sealed.<br>Capacitance Range (pF): 2400 to 89600<br>Rated Voltage (V): 35 to 500<br>Rated DC Current (A): 10<br>Insertion loss (dB) @ 1GHz: 65 to 75<br>Size (max mm): DIA 7.1 x 26.5<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3008/021<br>ESCC 3008/030 | Axial | • EUROFARAD | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA 2210/101-***** | <Ratings><br>Parts number Voltage Current Nominal resistance<br>JAXA2210/101- (V) (A) (m Ohm)<br>A72V1AL 72 1.0 110-220<br>A72V1.5AL 72 1.5 70.0-163<br>A72V2AL 72 2.0 45.0-75.0<br>A72V3AL 72 3.0 20.0-43.8<br>A72V5AL 72 5.0 12.0-22.5<br>A72V7.5AL 72 7.5 8.20-13.8<br>A72V10AL 72 10.0 6.30-10.7<br>A72V15AL 72 15.0 4.00-7.00<br>A126V1AL 126 1.0 90.0-270<br>A126V3AL 126 3.0 20.0-95.0<br>A126V5AL 126 5.0 12.0-40.0<br>- Operating temperature range : -55C to +125C<br>- Rated breaking capacity : 1,000A | JAXA-QTS-2210/101A | Radial | • TATEYAMA KAGAKU INDUSTRY CO., LTD. | 1) The following documents are available at JAXA Qualified EEE parts database. ( https://eeepitnl.tksc.jaxa.jp/en/ )<br>- General specification : JAXA-QTS-2210<br>- Detail specification : JAXA-QTS-2210/101A<br>- Application data sheet : JAXA-ADS-2210/101B<br>2) As to Export License, Manufacturer will apply to METI (Ministry of Economy, Trade and Industry) for license in accordance with “Foreign Exchange and Foreign Trade Act (Law)” with information such as End User/End Use. |
| 1 | MGA-S | Surface mount, Thin Film<br>Rated Voltage (VAC or VDC): 125/125, 63/125 and 32/125 by variant<br>AC Interrupt Current (A): 50 at maximum rated voltage, power factor> 0.95<br>DC Interrupt Current (A): at maximum rated voltage, time constant ≤ 1 ms:<br>Variants 01 to 10: 300<br>Variants 11 and 12: 50<br>Rated Current (VAC and VDC): 0.14 to 3.5 A by variant<br>Operating Temperature Range, (°C): -50 to +125 (90% IR to 107% IR) | ESCC 4008/001 | SMD | • Schurter AG | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 12xxxxxx | RF filter air coil.Temperature range: -55°C to +120°CDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD-981Mechanical Shock: 1000G | FT08690020 | Flying leads (THM, SMT optional) | • Flux A/S | Qualification sample: Q23 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 12xxxxxx | Inductors based on toroidal cores.Temperature range: -55°C to +120°CDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD-981Mechanical Shock: 1000G | FT08690020 | Flying leads, SMT, THM | • Flux A/S | Qualification samples: Q13, Q14, Q16, Q18, Q19, Q21, Q22 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | MSCI 10000 | RF, Moulded, Surface mount.<br>Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min<br>0.010 to 10 10 750 to 87 60 to 42<br>Dielectric withstanding voltage (Vrms): 200<br>Size (max mm): 2.67 x 2.80 x 2.16<br>Operating Temperature Range (°C.): -55 to +125. | ESCC 3201/008 | SMD | • MICROSPIRE | |
| 1 | MSCI 12000 | RF, Moulded, Surface mount.<br>Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min<br>12 to 1000 10 110 to 15 37 to 12<br>Dielectric withstanding voltage (Vrms): 200<br>Size (max mm): 2.67 x 2.80 x 2.54<br>Operating Temperature Range (°C.): -55 to +125. | ESCC 3201/008 | SMD | • MICROSPIRE | |
| 1 | MSCI 20000 | RF, Moulded, Surface mount.<br>Inductance Range (uH) Tol. (%) Rated DC Current (mA) Q min<br>0.010 to 1000 10 1000 to 25 75 to 30<br>Dielectric withstanding voltage (Vrms): 200<br>Size (max mm): 3.38 x 4.14 x 3.30<br>Operating Temperature Range (°C.): -55 to +125. | ESCC 3201/008 | SMD | • MICROSPIRE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 19xxxxxx | Inductor assembly based on toroidal cores combined with RM transformers.Temperature range: -55ºC to +120ºCDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD- | FT08690020 | SMT (THM optional) | • Flux A/S | Qualification sample: Q24 |
| 1 | SESI 15 | Power, Moulded, Surface mount.<br>Inductance Range (uH) Tol. (%) Rated DC Current (mA)<br>1.5 to 330 10 14 to 0.74<br>Dielectric withstanding voltage (Vrms): 500<br>Size (max mm): 16.0 x 16.5 x 7.5<br>Operating Temperature Range (°C.): -55 to +125. | ESCC 3201/009 | SMD | • MICROSPIRE | |
| 1 | SESI 9.1 | Power, Moulded, Surface mount.<br>Inductance Range (uH) Tol. (%) Rated DC Current (mA)<br>1 to 1000 10 6.0 to 0.2<br>Dielectric withstanding voltage (Vrms): 500<br>Size (max mm): 10.7 x 10.6 x 5.8<br>Operating Temperature Range (°C.): -55 to +125. | ESCC 3201/009 | SMD | • MICROSPIRE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AT697F | SPARC V8 processor based on ESA LEON2 FT model, produced on the AT58KRHA process using ATC18RHA standard cell library, 100MHz, 85MIPS, 100KRADS, LU immune, SEU & SET hardened, very low power | SMD 5962-07224 | MQFP256 / MCGA349 | • ATMEL | |
| 1 | AT7913E | SpaceWire remote terminal controller with LEON2FT embedded processor | SMD 5962-10A03 | LGA349 | | |
| 1 | TSC695F | Single chip, 32 bit, SPARC Microprocessor<br>Process SCMOS3/2RTP<br>Operating temperature range : -55 / +125 °C | ESCC 9512/003 | QFP 256 | • ATMEL | Also available with SMD/5962-00540 |
| 1 | TSC695FL | Single chip, 32 bit, SPARC Microprocessor<br>Specified at 3.3 V with 12 MIPs<br>Process SCMOS3/2RTP<br>Operating temperature range : -55 / +125 °C | SMD/5962-03246 | MQFP256 | • ATMEL | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AT 68166HT | 16 MegaBit 3.3V (5V tolerant) SRAM Multi-Chip Module | 5962-0622905 | MQFP68 | • ATMEL | SEE behaviour should be verified where necessary |
| 1 | AT60142H | 3.3 V 512Kx8 SRAM<br>High speed, rad-hard version<br>Operating temperature range : -55 / +125 °C | SMD 5962-05208 | FP36 | • ATMEL | SEE behaviour should be verified where necessary |
| 1 | AT60142HT | 5V tolerant 512Kx8 SRAM<br>High speed, rad-hard version<br>Operating temperature range : -55 / +125 °C | SMD 5962-05208 | FP36 | • ATMEL | |
| 1 | AT68166H | 16 MegaBit 3.3V  SRAM Multi-Chip Module | 5962-0622906 | MQFP68 | • ATMEL | SEE behaviour should be verified where necessary |
| 1 | SMDJ-65608EV-30 | 128Kx8 SRAM<br>Variant 06 of ESCC 9301/047 | ESCC 9301/047 | FP-32 | • ATMEL | Also available with SMD/5962-89598 |
| 1 | SMDJ-65609E | 3.3 V 128Kx8 SRAM<br>Operating temperature range : -55 / +125 °C | ESCC 9301/053 | FP 32 | • ATMEL | Also available with SMD/5962-02501 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | MMSD32032602S-J | 1 Gb (32M x 32) SDRAM memory module | 3DPA-1600-4 (Detail), 3DPF-0141-4 (Generic) | SOP 70-0635 | • 3D-Plus | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AT40KEL040 | 40k Gates SEU hardened reprogrammable FPGA<br>DSP Optimized Core Cell and Distributed FreeRam, Enhanced Performance Improvement and Bi-directional I/Os (3.3 V)<br>Operating temperature range: -55 to +125 °C | ESCC 9304/008 | MQFP 160 | • ATMEL | Also available with SMD/5962-03250 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | ATC18RHA | 0.18u CMOS ASIC standard cell library with predefined matrix sizes: ATC18RHA95_216 allowing to integrate typically 1Mgates ATC18RHA95_324 allowing to integrate typically 2.2Mgates ATC18RHA95_404 allowing to integrate typically 3.5Mgates ATC18RHA95_504 allowing to integrate typically 5.5MgatesPredefined combinations of matrix and package: 196 to 352 MQFPOperating temperature range : -55 / +125 C | ESCC 9202/080 | MQFP | • ATMEL | Also available with 5962-06B02 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | LM124AW | Low Power Quad Bipolar Operational Amplifier<br>Operating temperature range: -55 / +125 °C | SMD/5962-99504 | FP-14 | • NATIONAL SEMICONDUCTOR | Part is R level (100 kRad(Si)) TID tolerant, Var. 02 is "not sensitive to low dose rate"; it is recommended to procure P/N 5962R9950402VDA (no lower TID levels). |
| 1 | OP27A | Single, Ultra-Low Noise and Offset, Internally Compensated Operational Amplifier | SMD/5962-94680 | DIL FP10 | • ANALOG DEVICES | |
| 1 | OP470AY | Operational Amplifier, Quad, Very Low Noise | SMD/5962-88565 | DIL, FP24 | • ANALOG DEVICES | |
| 1 | OP77 | Ultra low offset Voltage Operational Amplifier (replacement of OP-07 and OP-108A). | SMD/5962-87738 | LCC20 FP10 | • ANALOG DEVICES | |
| 1 | RHF310K-01V | Operational Amplifier Single, High Speed, Current Feedback<br>Operating temperature range: -55 / +125 °C | SMD/5962-07233 | FP-8 | • STMicroelectronics | |
| 1 | RHF330K-01V | Operational Amplifier, Single, High Speed, Current Feedback<br>Operating Temperature Range: -55 to +125 °C | SMD/5962-07231 | FP-8 | • STMicroelectronics | New component |
| 1 | RHF350K-01V | Rad-hard 550 MHz low noise operational amplifier. | SMD 5962-07232 | FLAT PACK 8 LEADS | • STMicroelectronics | QUALIFIED I.A.W. Mil-Std-883 TM 1019 TO 300 kRad(Si) |
| 1 | RHF43B | Operational Amplifier, Single<br>Operating Temperature Range: -55 to +125 °C | SMD/5962-06237 | FP-8 | • STMicroelectronics | |
| 1 | RHF484K-01V | Rad-hard precision quad operational amplifier | SMD 5962-08222 | FLAT PACK 14 LEADS | • STMicroelectronics | QUALIFIED I.A.W. Mil-Std-883 TM 1019 TO 300 kRad(Si) |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | LM117H | 3-Terminal Adjustable Positive Regulator, 0.5A | SMD/5962-07229 | TO-39, Ceramic SOIC | • NATIONAL SEMICONDUCTOR | |
| 1 | LM117K | 3-Terminal Adjustable Positive Regulator, 1.5A | SMD/5962-99517 | TO-3 | • NATIONAL SEMICONDUCTOR | |
| 1 | LM137H | 3 Terminal Adjustable Negative Regulator, 0.5A | SMD/5962-99517 | TO-39 | • NATIONAL SEMICONDUCTOR | |
| 1 | RH-L4913 2.5 V | Fixed, Positive, 2.5 V, 2A<br>Operating temperature range: -55 / +125 °C | SMD/5962-02534 | FP16, SMD.5 | • STMicroelectronics | |
| 1 | RH-L4913 3.3 V | Fixed, Positive, 3.3 V, 2A<br>Operating temperature range: -55 / +125 °C | SMD/5962-02535 | FP16, SMD.5 | • STMicroelectronics | |
| 1 | RH-L4913 5 V | Fixed, Positive, 5 V, 2A<br>Operating temperature range: -55 / +125 °C | SMD/5962-02536 | FP16, SMD.5 | • STMicroelectronics | |
| 1 | RH-L4913 ADJ | Adjustable, Positive, Low Dropout, 2A<br>Operating temperature range: -55 / +125 °C | SMD/5962-02524 | FP16 | • STMicroelectronics | |
| 1 | RH-L7913 ADJ | Adjustable, Negative, Low Dropout, 2A<br>Operating temperature range: -55 / +125 C | SMD/5962-02532 | FP-16 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AD584SH | Voltage Reference, Precision Pin Programmable<br>Variant 01 od SMD/5962-38128 (S precision type)<br><br>Operating Temperature range: -55 to +125 °C | SMD/5962-38128 | 8-Pin Metal Can | • ANALOG DEVICES | |
| 1 | LM111W | Voltage Comparator/Buffer, Precision | SMD/5962-00524 | FP | • NATIONAL SEMICONDUCTOR | |
| 1 | LM119 | Dual, High Speed Voltage Comparator | SMD/5962-96798 | FP | • NATIONAL SEMICONDUCTOR | Part is not ELDRS-free |
| 1 | LM139AWR | Quad, Single Supply, Low Power Voltage Comparator | SMD/5962-96738 | FP14 | • NATIONAL SEMICONDUCTOR | |
| 1 | LM193AH | Dual, Low Power, Low Offset Voltage Comparator | SMD/5962-94526 | Metal Can | • NATIONAL SEMICONDUCTOR | Part is not ELDRS-free |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | ST1843FK | High performance Pulse Width Modulator controller | RNS/AS/10-323-01/ce-rev2 | FP8 | • STMicroelectronics | This part is very sensitive to SET |
| 1 | ST1845FK | High performance current mode PWM controller | RNS/AS/10-326-02/ce-rev2 | FP8 | • STMicroelectronics | This part is very sensitive to SET |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AD574AT | A/D Converter, 12-Bit, High Speed, with Microprocessor Interface | SMD 5962-85127 | FP | • ANALOG DEVICES | |
| 1 | RHF1201KSO-01V | Rad-Hard, 12 bit, 0.5 to 50 MHz sampling frequency Analog-to-Digital Converter<br>CMOS, 0.25 um technology<br>Operating temperature range: -55 / +125 °C | SMD/5962-05217 | FP-48 | • STMicroelectronics | |
| 1 | RHF1401 | Rad-Hard 14-bit 20Msps 85mW A/D Converter<br>Operating Temperature Range: -55 to +125 °C | SMD/5962-0626 | SO-48 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | DAC08 | 8-Bit D/A Converters, 0.19% Linearity | SMD/5962-89932 | DIL, FP16 | • ANALOG DEVICES | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AD590M | Temperature Transducer, Two Terminals<br>Forward voltage (E+ to E-)(Vdc): +44<br>Forward voltage (E- to E+)(Vdc): -20<br>Breakdown voltage (Case to E+ or E-)(Vdc): ± 200<br>Rated performance temperature range (°C.): -55 to +150 | SMD/5962-87571 | FP | • ANALOG DEVICES | |
| 1 | UC1707 | High Speed Schottky, Dual Channel Power Driver. | SMD/5962-87619 | DIL16<br>LCC20 | • TEXAS INSTRUMENTS | Part is not ELDR-free |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 4001B | QUAD 2-INPUT NOR GATE | ESCC 9201/041 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40103B | PRESETTABLE 8-BIT SYNCHRONOUS DOWN-COUNTER | ESCC 9204/036 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40106B | HEX SCHMITT TRIGGER | ESCC 9409/005 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40107B | DUAL 2-INPUT NAND BUFFER / DRIVER | ESCC 9401/013 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40109B | QUAD LOW-TO-HIGH 3-STATE VOLTAGE LEVEL SHIFTER | ESCC 9407/003 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4011B | QUAD 2 INPUT NAND GATE | ESCC 9201/043 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4013B | DUAL D-TYPE FLIP-FLOP | ESCC 9203/023 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4014B | 8-STAGE SYNCHRONOUS STATIC SHIFT REGISTER | ESCC 9306/014 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 4015B | DUAL 4-STAGE STATIC SHIFT REGISTER WITH SERIAL INPUT / PARALLEL OUTPUT | ESCC 9306/015 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40161B | PROGRAMMABLE 4-BIT BINARY COUNTER WITH ASYNCHRONOUS CLEAR | ESCC 9204/054 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 40174B | HEX D-TYPE FLIP-FLOP | ESCC 9203/038 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4017B | DECADE COUNTER / DIVIDER | ESCC 9204/020 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4019B | QUAD AND/OR SELECT GATE | ESCC 9202/051 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4020B | 14-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER | ESCC 9204/022 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4021B | 8-STAGE STATIC SHIFT REGISTER | ESCC 9306/016 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4023B | TRIPLE 3-INPUT NAND GATE | ESCC 9201/045 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 4024B | 7-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER | ESCC 9204/024 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4027B | DUAL J-K MASTER-SLAVE FLIP-FLOP | ESCC 9203/022 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4028B | BCD-TO-DECIMAL OR BINARY-TO-OCTAL DECODER | ESCC 9205/010 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4029B | PRESETTABLE UP/DOWN COUNTER BINARY OR BCD DECADE | ESCC 9204/025 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4030B | QUAD 2-INPUT EXCLUSIVE OR GATE | ESCC 9201/047 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4040B | 12-STAGE RIPPLE CARRY BINARY COUNTER / DIVIDER | ESCC 9204/026 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4047B | LOW POWER MONOSTABLE / ASTABLE MULTIVIBRATOR | ESCC 9207/003 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4049UB | HEX BUFFER-CONVERTER (INVERTING TYPE) | ESCC 9202/045 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 4050B | HEX BUFFER-CONVERTER (NON-INVERTING TYPE) | ESCC 9202/046 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4051B | ANALOGUE MULTIPLEXER / DEMULTIPLEXER | ESCC 9202/047 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4063B | 4-BIT MAGNITUDE COMPARATOR | ESCC 9209/001 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4066B | QUAD BILATERAL SWITCH | ESCC 9408/005 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4069UB | HEX INVERTER | ESCC 9401/010 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4071B | QUAD 2-INPUT OR GATE | ESCC 9201/063 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4073B | TRIPLE 3-INPUT AND GATE | ESCC 9201/064 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4076B | 4-BIT D TYPE REGISTER WITH 3-STATE OUTPUT | ESCC 9306/022 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 4081B | 8 INPUT OR-NOR GATE | ESCC 9201/052 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4093B | QUAD 2 INPUT NAND GATE WITH SCHMITT TRIGGER INPUT | ESCC 9409/002 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4094B | 8-STAGE SHIFT AND STORE BUS REGISTER WITH SYNCHRONOUS SERIAL OUTPUTS AND 3-STATE PARALLEL OUTPUT | ESCC 9306/026 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4098B | DUAL MONOSTABLE MULTIVIBRATOR | ESCC 9206/003 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4503B | HEX NON-INVERTING BUFFER WITH 3-STATE OUTPUT | ESCC 9401/030 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4512B | 8-CHANNEL MULTIPLEXER WITH 3-STATE OUTPUT | ESCC 9408/006 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 4555B | DUAL 1-OF-4 DECODER / DEMULTIPLEXER | ESCC 9408/011 | FP | • STMicroelectronics | 100 kRad(Si) TID test performed on each wafer lot i.a.w. ST internal procedure |
| 1 | 54AC00 | Quad 2-Input NAND Gate | SMD/5962-87549 | FP | • STMicroelectronics | |
| 1 | 54AC02 | Quad 2-Input NOR Gate | SMD/5962-87612 | FP | • STMicroelectronics | |
| 1 | 54AC04 | Hex Inverter | SMD/5962-87609 | FP | • STMicroelectronics | |
| 1 | 54AC08 | Quad 2-Input AND Gate | SMD/5962-87615 | FP | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 54AC10 | Triple 3-Input NAND Gate | SMD/5962-87610 | FP | • STMicroelectronics | |
| 1 | 54AC11 | Triple 3-Input AND Gate | SMD/5962-87611 | FP | • STMicroelectronics | |
| 1 | 54AC138 | Decoder/Demultiplexer, 3-to-8 line | SMD/5962-87622 | FP | • STMicroelectronics | |
| 1 | 54AC139 | Dual 2 To 4 Line Decoder/Demultiplexer, with Inverted Outputs | SMD/5962-87623 | FP | • STMicroelectronics | |
| 1 | 54AC14 | Hex Schmitt Trigger Inverter | SMD/5962-87624 | FP | • STMicroelectronics | |
| 1 | 54AC157 | Quad 2-Input Multiplexer | SMD/5962-89539 | FP | • STMicroelectronics | |
| 1 | 54AC161 | Synchronous 4-Bit Binary Counter | SMD/5962-89561 | FP | • STMicroelectronics | |
| 1 | 54AC16244 | 16 bit Buffer/Driver with three-state outputs | SMD/5962-04210 | FP | • STMicroelectronics | |
| 1 | 54AC240 | Octal Bus Buffer with Inverted 3-State Outputs | SMD/5962-87550 | FP | • STMicroelectronics | |
| 1 | 54AC244 | Octal Buffer/Line Driver with 3-State Outputs | SMD/5962-87552 | FP | • STMicroelectronics | |
| 1 | 54AC245 | Bus Transceiver, 8-Bit, Bidirectional, with 3-State Inputs/Outputs | SMD/5962-87758 | FP | • STMicroelectronics | |
| 1 | 54AC273 | Octal D-Type Flip-Flop with Clear | SMD/5962-87756 | FP | • STMicroelectronics | |
| 1 | 54AC32 | Quad 2-Input OR Gate | SMD/5962-87614 | FP | • STMicroelectronics | |
| 1 | 54AC373 | Octal D-Type Transparent Latches with 3-State Outputs | SMD/5962-87555 | FP | • STMicroelectronics | |
| 1 | 54AC374 | Octal D-Type Flip-Flop with 3-State Outputs | SMD/5962-87694 | FP | • STMicroelectronics | |
| 1 | 54AC541 | Octal Bus Buffer with 3-State Outputs | SMD/5962-88706 | FP | • STMicroelectronics | |
| 1 | 54AC74 | Octal D-Type Flip-Flop with 3-State Outputs | SMD/5962-88520 | FP | • STMicroelectronics | |
| 1 | 54AC86 | Quad 2-Input Exclusive OR Gate | SMD/5962-89550 | FP | • STMicroelectronics | |
| 1 | 54ACT00 | Quad 2-Input NAND Gate, with TTL Compatible Inputs | SMD/5962-87699 | FP | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 54ACT240 | Octal Bus Buffer with Inverted 3-State Outputs, TTL Compatible Inputs | SMD/5962-87759 | FP | • STMicroelectronics | |
| 1 | 54ACT244 | Octal Buffer/Line Driver with 3-State Outputs, TTL Compatible Inputs | SMD/5962-87760 | FP | • STMicroelectronics | |
| 1 | 54ACT245 | Octal Bidirectional Transceiver with 3-State Outputs, TTL Compatible Inputs | SMD/5962-87663 | FP | • STMicroelectronics | |
| 1 | 54ACT574 | Octal D-Type Flip-Flop with 3-State Outputs, TTL Compatible Inputs | SMD/5962-89601 | FP | • STMicroelectronics | |
| 1 | 54ACT86 | Quad 2-Input Exclusive OR Gate, TTL Compatible Inputs | SMD/5962-90687 | FP | • STMicroelectronics | |
| 1 | 54HC00 | Quad 2-Input NAND Gate | ESCC 9201/105 | FP | • STMicroelectronics | |
| 1 | 54HC02 | Quad 2-Input NOR Gate | ESCC 9201/113 | FP | • STMicroelectronics | |
| 1 | 54HC03 | Quad 2-Input Nand Gate with Open Drain Output | ESCC 9201/114 | FP | • STMicroelectronics | |
| 1 | 54HC04 | Hex Inverter | ESCC 9401/033 | FP | • STMicroelectronics | |
| 1 | 54HC08 | Quad 2-Input Positive AND Gate | ESCC 9201/106 | FP | • STMicroelectronics | |
| 1 | 54HC10 | Triple 3-Input NAND Gate | ESCC 9201/107 | FP | • STMicroelectronics | |
| 1 | 54HC109 | Dual J-K Positive Edge Triggered Flip-Flop with Preset and Clear | ESCC 9306/048 | FP | • STMicroelectronics | |
| 1 | 54HC11 | Triple 3-Input AND Gate | ESCC 9201/117 | FP | • STMicroelectronics | |
| 1 | 54HC125 | Quad Bus Buffers with 3 State Outputs | ESCC 9401/039 | FP | • STMicroelectronics | |
| 1 | 54HC132 | Quad 2-Input NAND Gate with Schmitt-trigger Inputs | ESCC 9201/120 | FP | • STMicroelectronics | |
| 1 | 54HC138 | 3-to-8 Line Decoders/Demultiplexers with Inverted Outputs | ESCC 9408/046 | FP | • STMicroelectronics | |
| 1 | 54HC139 | Dual 2-to-4-line Decoders/Demultiplexers with Inverted Outputs | ESCC 9205/017 | FP | • STMicroelectronics | |
| 1 | 54HC14 | Hex Schmitt Trigger Inverter | ESCC 9409/007 | FP | • STMicroelectronics | |
| 1 | 54HC151 | 8-line to 1-line Data Selectors/Multiplexer | ESCC 9408/054 | FP | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 54HC154 | 4-to-6 Line Decoder/Demultiplexer with Inverted Output | ESCC 9205/023 | FP | • STMicroelectronics | |
| 1 | 54HC157 | Quad 2-line to 1-line Data Selectors/Multiplexers | ESCC 9408/057 | FP | • STMicroelectronics | |
| 1 | 54HC158 | Quad 2-to-1-Line Data Selectors/Multiplexers with Inverted Outputs | ESCC 9408/059 | FP | • STMicroelectronics | |
| 1 | 54HC161 | Asynchronous 4-Bit Binary Counter | ESCC 9204/059 | FP | • STMicroelectronics | |
| 1 | 54HC164 | 8-bit Sipo Shift Register | ESCC 9306/041 | FP | • STMicroelectronics | |
| 1 | 54HC165 | 8-bit Sipo Shift Register | ESCC 9306/042 | FP | • STMicroelectronics | |
| 1 | 54HC166 | 8-bit Piso Shift Register | ESCC 9306/043 | FP | • STMicroelectronics | |
| 1 | 54HC174 | Hex D-Type Edge-triggered Flip-Flop with Clear | ESCC 9306/052 | FP | • STMicroelectronics | |
| 1 | 54HC175 | Quad D-Type Edge-triggered Flip-Flop with Clear | ESCC 9203/052 | FP | • STMicroelectronics | |
| 1 | 54HC191 | Synchronous 4-Bit Up/Down Binary Counter | ESCC 9204/066 | FP | • STMicroelectronics | |
| 1 | 54HC193 | Synchronous 4-Bit Up/Down Binary Counter (Dual Clock with Clear) | ESCC 9204/065 | FP | • STMicroelectronics | |
| 1 | 54HC20 | Dual 4-Input NAND Gate | ESCC 9201/118 | FP | • STMicroelectronics | |
| 1 | 54HC21 | Dual 4-Input AND Gate | ESCC 9201/108 | FP | • STMicroelectronics | |
| 1 | 54HC237 | 3-to-8-Line Decoder/Demultiplexer with Address Latch | ESCC 9205/021 | FP | • STMicroelectronics | |
| 1 | 54HC240 | Octal Bus Buffer with Inverted 3-State Outputs | ESCC 9401/034 | FP | • STMicroelectronics | |
| 1 | 54HC244 | Octal Bus Buffer with 3-State Outputs | ESCC 9401/048 | FP | • STMicroelectronics | |
| 1 | 54HC245 | Octal Bus Transceiver with 3-State Outputs | ESCC 9405/013 | FP | • STMicroelectronics | |
| 1 | 54HC257 | Quad 2-to-1-Line Data Selector/Multiplexer with 3-State Outputs | ESCC 9408/047 | FP | • STMicroelectronics | |
| 1 | 54HC27 | Triple 3-Input NOR Gate | ESCC 9201/109 | FP | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 54HC273 | Octal D-Type Edge-triggered Flip-Flop with Clear | ESCC 9203/053 | FP | • STMicroelectronics | |
| 1 | 54HC283 | 4-Bit Binary Full Adders with Fast Carry | ESCC 9202/075 | FP | • STMicroelectronics | |
| 1 | 54HC32 | Quad 2-Input OR Gate | ESCC 9201/111 | FP | • STMicroelectronics | |
| 1 | 54HC373 | Octal D-Type Transparent Latches with 3-State Outputs | ESCC 9203/059 | FP | • STMicroelectronics | |
| 1 | 54HC374 | Octal D-Type Edge-triggered Flip-Flop with 3-State Outputs | ESCC 9203/060 | FP | • STMicroelectronics | |
| 1 | 54HC4040 | Asynchronous Negative Edge-triggered 12-Bit Binary Counters | ESCC 9204/069 | FP | • STMicroelectronics | |
| 1 | 54HC4049 | Hex Buffer Converter with Inverted Outputs | ESCC 9401/037 | FP | • STMicroelectronics | |
| 1 | 54HC4050 | Hex Buffer Converter | ESCC 9401/038 | FP | • STMicroelectronics | |
| 1 | 54HC540 | Octal Bus Buffer with Inverted 3-State Outputs | ESCC 9401/049 | FP | • STMicroelectronics | |
| 1 | 54HC541 | Octal bus buffer with 3-state output | ESCC 9401/047 | FP | • STMicroelectronics | |
| 1 | 54HC573 | Octal D-type transparent latch with 3-state output | ESCC 9202/072 | FP | • STMicroelectronics | |
| 1 | 54HC574 | Octal D-type edge-triggered flip-flop with 3-state output | ESCC 9203/054 | FP | • STMicroelectronics | |
| 1 | 54HC590 | 8-Bit Binary Counter with 3-State Output Registers | ESCC 9204/071 | FP | • STMicroelectronics | |
| 1 | 54HC595 | 8-Bit Shift Registers with 3-State Output Registers | ESCC 9306/051 | FP | • STMicroelectronics | |
| 1 | 54HC597 | 8-Bit Piso Shift Register | ESCC 9306/054 | FP | • STMicroelectronics | |
| 1 | 54HC688 | 8-bit identify comparator | ESCC 9209/005 | FP | • STMicroelectronics | |
| 1 | 54HC74 | Dual Negative Edge Triggered D-Type Flip-Flop with Clear | ESCC 9203/050 | FP | • STMicroelectronics | |
| 1 | 54HC85 | 4-Bit Magnitude Comparator | ESCC 9209/004 | FP | • STMicroelectronics | |
| 1 | 54HC86 | Quad 2-Input Exclusive OR Gate | ESCC 9201/119 | FP | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 54HCT240 | Octal Bus Buffer with Inverted 3-State Outputs | ESCC 9401/045 | FP | • STMicroelectronics | |
| 1 | 54HCT244 | Octal Bus Buffer with 3-State Outputs | ESCC 9402/009 | FP | • STMicroelectronics | |
| 1 | 54HCT245 | Octal Bus Transceiver with 3-State Outputs | ESCC 9405/014 | FP | • STMicroelectronics | |
| 1 | 54HCT373 | Octal D-Type Transparent Latch with 3-State Outputs | ESCC 9203/064 | FP | • STMicroelectronics | |
| 1 | 54HCT374 | Octal D-Type Edge-triggered Flip-Flop with 3-State Outputs | ESCC 9203/066 | FP | • STMicroelectronics | |
| 1 | 54HCT74 | Dual D-Type Flip-Flop with Preset and Clear | ESCC 9203/070 | FP | • STMicroelectronics | |
| 1 | 54VCXH162244 | Low Voltage CMOS 16-bit Bus Buffer with Bus hold, series Output Resistors and three-state Outputs<br>Operating temperature range: -55 / +125 °C | SMD/5962-05210 | FP-48 | • STMicroelectronics | |
| 1 | 54VCXH162373 | Low Voltage CMOS 16-bit D-type Latch with Bus hold, series Output Resistors and three-state Outputs<br>Operating temperature range: -55 / +125 °C | SMD/5962-05211 | FP-48 | • STMicroelectronics | |
| 1 | 54VCXH162374 | Low Voltage CMOS 16-bit D-type Flip-Flop with Bus hold, series Output Resistors and three-state Outputs | SMD/5962-05212 | FP-48 | • STMicroelectronics | |
| 1 | 54VCXHR162245 | Rad-Hard low voltage CMOS, 16-bit bus transceiver with bus hold, Series Output Resistors, and Three-State Outputs<br>Supply voltage range from +1.8 V dc to +3.6 V dc<br>Operating temperature range: -55 / +125 °C | SMD 5962/05213 | FP-48 | • STMicroelectronics | |
| 1 | AC16245 | AC16245 is an advanced CMOS 16-bit bus transceiver with three-state outputs. | SMD 5962-04211 | Flat 48 | • STMicroelectronics | |
| 1 | AC164245 | 16-channel bidirectional multi-purpose transceiver | SMD 5962-98580 | Flat 48 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | PE33362 | Silicon on Sapphire, 3.5 GHz Integer-N Phase Locked Loop (PLL) Frequency Synthesizer, 10/11 Dual Mode Prescaler, Programmable Counters, Phase Detector and Control Logic, Hermetically Sealed<br><br>Operating Temperature Range: -55 to +85 °C | 14-0054 | CQFPJ-44 | • Peregrine Semiconductor Europe | |
| 2 | PE33382 | Silicon on Sapphire, 3.5 GHz Integer-N Phase Locked Loop (PLL) Frequency Synthesizer, 10/11 Dual Mode Prescaler, Programmable Counters, Phase Detector and Control Logic, Hermetically SealedOperating Temperature Range: -55 to +85 °C | 14-0055 | CQFPJ-44 | • Peregrine Semiconductor Europe | also available with ESCC 9202/079 |
| 1 | PE33632 | RF input up to 3.5 GHz, 3 wire serial interface18-bit delta-sigma modulator, divide by 10/11 dual mode prescaler,programmable counters, phase detectors and control logic | ESCC 9202/077 | CQFPJ-68 | • Peregrine Semiconductor Europe | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | BES | 1µm Schottky diode process | ESCC 9010 | N/A | • UMS | It is the responsibility of the users to check that the process design can withstand the radiation requirements for its application |
| 2 | D01PH | 0.13 µm 100 GHz ft 12V VBGD Pseudomorphic Power MMIC Process | Standard D01PH | DIE | • OMMIC | D01PH Process is sensitive to Hydrogen poisoning. A Hydrogen getter is mandatory in case of hermetic encapsulation. SEE Radiation: D01PH tested in DC+RF up to 8dB of Gain Compression: No evidence of sensitivity to Heavy Ions. |
| 2 | EDO2AH | 0.18 µm Mixed Analog/Digital 60 GHz Ft Pseudomorphic Low Noise MMIC Process | Standard ED02AH | DIE | • OMMIC | EDO2AH Process is sensitive to Hydrogen poisoning. A Hydrogen getter is mandatory in case of hermetic encapsulation. |
| 2 | GH50-10 transistor process | 0.5 um GaN HEMT (AlGaN/GaN on SiC substrate) for Power amplifier up to C band.MAXIMUM RATING for AB class operation** Vds (at Ids = 50 mA/mm): 60V (50V recommended)** Vgs: -7V** Output power at PAEmax +1dB** Maximum VSWR under recommended ratings:  5:1 all phases (sustained operation should stay below a recommended VSWR of 3:1 to safeguard reliability)** Ig (under DC bias only) > -0.5mA/mm** Tj (under recommended conditions): 160CNotes:1- All conditions can be fulfilled simultaneously.2- The given values must not be exceeded at the same time even momentarily for any parameter, since each parameter is independent from each other, otherwise deterioration or destruction of the device may take place.3- Recommended operating output power is defined as the input power level to operate at maximum power added efficiency (PAE)4- Junction temperature is specified as the maximum peak junction temperature  NOTE: As during reliability tests a maximum power bar size of 12mm was tested (CHK040 topology), the space evaluation domain is limited to 12mm of total periphery of power bars. For sizes higher than 12mm it is the responsibility of the users to perform relevant reliability tests. | - | - | • UMS | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | HB20M | Mixed digital/analog MMIC HBT process<br>InGaP HBT (2 μm emitter width)<br>Application in mixed digital/analog circuits up to Ku band | ESCC 9010 | N/A | • UMS | Single Events Effects have to be considered due to the digital elements |
| 2 | HB20P | HBT GaInP/GaAs Foundry Process, 0.7 um GateApplications in Power Amplifiers up to Ku Band | ESCC 9010 | N/A | • UMS | |
| 2 | HB20PX-10 | HBT InGaP (2 µm emitter width)<br>Applications in Power Amplifiers up to Ku Band<br>Absolute Maximum Ratings (AMR) for HB20PX-10:<br>- Base to Collector Voltage : Vbc = 11.0V<br>- Collector to Emitter Voltage: Vce = 9.5V (VSWRmax = 2 and 4dBC of Compression, Jce = 33000A/cm² for single cell transistor in CW mode and Jce = 22000A/cm² for bi-cell transistor in pulsed mode)<br>- RF Compression = 5 dB (under maximum operating conditions)<br>- Max DC Collector Emitter Current Density: Jce = 40000A/cm² per emitter area (in pulsed mode for Bi-Cell Transistor)<br>- Base to Emitter Voltage: Vbe = 2.5V | ESCC 9010 | N/A | • UMS | It is the responsibility of the users to check that the process design can withstand the radiation requirements for its application. Max ratings should be in conformance with the application |
| 2 | HB20S | Power HBT process<br>Application in Power Transistors for L to C band Amplifiers | ESCC 9010 | N/A | • UMS | No radiation tests was performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application. |
| 2 | HP07-20 | MMIC, GaAs Foundry Process, MESFET 0.7 um for power applications up to Ku Band. Replacement of HP07 Process by HP07-20 process due to a change in the gate lithography process. | ESCC 9010 | N/A | • UMS | DO NOT USE BEYOND Vgdmax/2 DUE TO SENSITIVITY TO HEAVY IONS. |
| 2 | MMICProcess PPH15X-10 | 0.15 µm GaAs Power P-HEMT process<br>Absolute Maximum Ratings (AMR) for PPH15X-10:<br>- Drain to Source Voltage: Vds = 8V at Ids = 150mA/mm<br>- Maximum instantaneous RF Drain to Gate Voltage: Vdgmax = 14V at the maximum DC Operating point specified above (Vds = 8V and Ids = 150mA/mm)<br>- RF Compression = 7dB for Power matched 8x75m cell at Ids = 150mA/mm and Vds = 7V<br>- Gate to Source Voltage: Vgs = -2.5V | NA | NA | • UMS | SEE to be performed by end user, testing in DC only planed in the frame of other ESA research Programme, EPPL would be updated accordingly in 2012 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | PH15 | MMIC GaAs Foumdry Process, 0.15 um Pseudomorphic High Electron Mobility Transistor (P-HEMT) for low noise, low level applications up to W Band | NONE | N/A | • UMS | Passive elements are similar to PH25 Process.<br>No radiation tests were performed on this process. Therefore it is the responsibility of the users to check that its design can withstand the radiation requirements for its application (especially for SEE). |
| 2 | PH25 | MMIC GaAs Foumdry Process, 0.25 um Pseudomorphic High Electron Mobility Transistor (P-HEMT) for low noise, low level applications up to 100 GHz | ESCC 9010 | N/A | • UMS | |
| 2 | PPH25X-10 | 0.25 µm Power P-HEMT processApplication in Power Amplifiers C to K bandAbsolute Maximum Ratings (AMR) for PPH25X-10:- Drain to Source Voltage: Vds = 9.5V (VSWR max of 2 and 3dBc)- Gate to Drain Voltage: Vgdmax = -11.5V- RF Compression = 7dB (Vds = 8.0V and VSWR of 3)- Gate to Source Voltage: Vgs = -3.0V yum | ESCC 9010 | N/A | • UMS | SEE Radiation: PPH25X-10 tested in DC+RF up to 8dB of Gain Compression: No evidence of sensitivity to Heavy Ions.TA20: Max ratings should be in conformance with the application |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | AT7910E | SpW-10X router: it includes 8 bi-directional SpaceWire serial ports and 2 bidirectional parallel external interfaces. | SMD 5962-09A03 | MQFP196 | • ATMEL | |
| 1 | AT7911E | Triple SpaceWire links high speed controller | SMD/5962-08A01 | MQFPL 196 | • ATMEL | |
| 1 | AT7912E | SpaceWire link high speed controller, also known as SMCS116SpW | SMD 5962-08A02 | MQFPF100 | • ATMEL | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 317 | Contact Rating: 15A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 28Vdc<br>Mounting Variants 01 to 06<br>Size (max mm.): 26 x 26 x 14.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3601/007 | 1/2 CAN | • STPI | |
| 1 | E | Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 26.5Vdc<br>Mounting Variants 01 and 11<br>Size (max mm.): 13.00 x 10.40 x 6.10.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3601/012 | 1/6 Crystal CAN | • LEACH INTERNATIONAL Europe | |
| 2 | E215 | Contact Rating: 15 A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 28 Vdc<br>Mounting Variants 03,04 and 06<br>Size (max mm.): 13.00 x 25.70 x 25.80.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3601/007 | Half-cubic inch can | • REL STPI | |
| 1 | GP5 | Contact Rating: 2A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 26.5 Vdc<br>Mounting Variants 02, 03 and 06<br>Size (max mm.): 20.57 x 10.41 x 10.41.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3601/003 | Half crystal can | • LEACH INTERNATIONAL Europe | |
| 1 | T | Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6.0, 12 V<br>Size (max mm):DIA 9.40 x 7.00<br>Operating Temperature Range (°C.): -65 to +125 | ESCC 3601/002 | TO-5 | • REL STPI | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 317B | Contact Rating: 15A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 28Vdc<br>Mounting Variants 03, 04, 06, 14 and 16<br>Size (max mm.): 26 x 26 x 13.34<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/009 | 1/2 CAN | • STPI | |
| 1 | 327B | Contact Rating: 15A at 28 Vdc Contact Configuration: 4PDT<br>Coil Voltage: 6, 12 and 28Vdc<br>Mounting Variants 04, 06, 09, 14, 16 and 19<br>Size (max mm.): 26 x 26 x 26<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/004 | CAN | • STPI | |
| 1 | D | Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 26.5 Vdc<br>Mounting Variants 01 and 11<br>Size (max mm.): 13.00 x 10.40 x 6.10.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/019 | 1/6 Crystal CAN | • LEACH INTERNATIONAL Europe | |
| 1 | GP2 | Contact Rating: 2A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6, 12 and 26.5 Vdc<br>Mounting Variants 02, 03 and 06<br>Size (max mm.): 20.57 x 10.41 x 11.00.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/003 | Half crystal can | • LEACH INTERNATIONAL Europe | |
| 1 | GP250 | Contact Rating: 2A at 50 Vdc (4A pp. at 56 Vrms, 20 kHz) Contact Configuration: 2PDT<br>Coil Voltage: 12 and 26.5 Vdc<br>Mounting Variants 02, 03 and 06<br>Size (max mm.): 20.57 x 10.41 x 11.00.<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/010 | Half crystal can | • LEACH INTERNATIONAL Europe | |
| 2 | PHL50 | Contact Rating: 50A at 50 Vdc Contact Configuration: 1PDT<br>Coil Voltage : 48, 28, 12 Vdc<br>Size (max mm): 47.8 x 34.6 x 26.2<br>Operating Temperature Range (°C): -65 to +125 | ESCC 3602/014 | AS PER SPEC. | • REL STPI | |
| 1 | TL | Contact Rating: 1A at 28 Vdc Contact Configuration: 2PDT<br>Coil Voltage: 6.0, 12 V<br>Size (max mm): DIA 9.40 x 7.00<br>Operating Temperature Range (°C.): -65 to +125 | ESCC 3602/002 | TO-5 | • REL STPI | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | SMP/SMS/SMT | SMD tape and reel shunt resistors<br><br>Variant Res. range (mohm) Tolerance (%) Temp. coefficient (ppm/°C)<br>01 5 - 1000 0.5 - 1.0 50<br>02 3 - 1000 0.5 - 1.0 50<br>03 4 - 2000 0.5 - 1.0 50<br>Dimensions max. (mm): 7.3 x 4.3 x 1.0<br>Operating temperature range: -55 to +170 °C | ESCC 4001/027 | TAPE AND REEL | • ISABELLENHUETTE HEUSLER GmbH & Co.KG | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | MG680 | High Voltage<br>Range (Ohm): 600 - 20M Tol. ( ±%) : 0.5<br>TC (10E-6/±C): 140 Power Rating (W): 0.800<br>Max. Voltage (V): 2000 Size (max mm): DIA 1.80 x 4.30<br>Operating temperature range (°C): -55 to +125 | GSFC S-311-P-683 | Axial | • CADDOCK ELECTRONICS | |
| 2 | MG710 | High Voltage<br>Range (Ohm): 800 - 50M Tol. (± %) : 0.5<br>TC (10E-6/°C): 140 Power Rating (W): 1<br>Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30<br>Operating temperature range (°C): -55 to +125 | GSFC S-311-P-683 | Axial | • CADDOCK ELECTRONICS | |
| 2 | MG716 | High Voltage<br>Range (Ohm): 600 - 75M Tol. (± %) : 0.5<br>TC (10E-6/°C): 140 Power Rating (W): 1.5<br>Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30<br>Operating temperature range (°C): -55 to +125 | GSFC S-311-P-683 | Axial | • CADDOCK ELECTRONICS | |
| 2 | MG721 | High Voltage<br>Range (Ohm): 200 - 100M Tol. (± %) : 0.5<br>TC (10E-6/°C): 140 Power Rating (W): 2<br>Max. Voltage (V): 4000 Size (max mm): DIA 1.80 x 4.30<br>Operating temperature range (°C): -55 to +125 | GSFC S-311-P-683 | Axial | • CADDOCK ELECTRONICS | |
| 1 | RNC90 | Film Non-Hermetically Sealed Range (Ohm): 50 - 100K Tol. (± %) : 0.02, 1<br>TC (10E-6/°C): 5 Power Rating (W): 0.5@70C Max. Voltage (V): 300<br>Size (max mm): 7.5 x 8 x 2.5 Operating temperature range (°C): -55 to +175 | ESCC 4001/011 | AXIAL | • VISHAY S.A. div. SFERNICE | |
| 1 | TNPS | Resistors, Fixed, Surface Mount, Thin Film, Non-Hermetic, Based on Type TNPS<br><br>E96 series, Style 0603, 0805 and 1206, 10 to 1.0 MOhm, 0.1 % tolerance, 15 ppm/°C TC | ESCC 4001/029 | Chip | • VISHAY ELECTRONIC GmbH - DIVISION DRALORIC | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | CHP | Thick Film Chip Resistors with wraparound<br>Sizes: 0603, 0805, 1206, 2010, 2512<br>range = all variants, 01 to 10, with characteristics as in the specification | ESCC 4001/026 | CHIP | • VISHAY S.A. div. SFERNICE | |
| 1 | P HR | Thin Film, 1206/0805/2010/0603 Series, High Precision and Stability<br>Case Size Resistance Range (ohm) Tolerance Power Rating (mW) Dimensions (max. mm)<br>0603(Var. 01-05) 250 to 200 k 0.01, 0.02 % 100 2.16 x 1.01 x 1.02<br>0805(Var. 02-06) 250 to 250 k 0.01, 0.02 % 125 2.55 x 1.53 x 1.02<br>1206(Var. 03-07) 250 to 1 M 0.01, 0.02 % 250 3.64 x 1.86 x 1.02<br><br>TC (10E-6/°C) : 10<br>Operating Temperature Range -55 to +125 °C | ESCC 4001/023 | CHIP | • VISHAY S.A. div. SFERNICE | |
| 1 | PFRR | Thin Film, 0603/0805/1206/2010 Series, High Precision and Stability with Establish Reliability Level R<br>Case Size Resistance Range (ohm); Tolerance (%); Power Rating (mW); Dimen.(max. mm)<br>0603(Var. 09): 100 to 261K; 0.05, 0.1; 100; 2.16 x 1.01 x 1.02<br>0805(Var. 10): 100 to 301K; 0.05, 0.1; 125; 2.55 x 1.53 x 1.02<br>1206(Var. 11): 100 to 1M; 0.05, 0.1; 250; 3.64 x 1.86 x 1.02<br>2010(Var. 12): 100 to 3M01; 0.05, 0.1; 500; 5.72 x 2.8 x 1.02<br>TC (10E-6/°C) : 10<br>Operating Temperature Range -55 to +125°C | ESCC 4001/023 | CHIP | • VISHAY S.A. div. SFERNICE | Modification in Description |
| 1 | PRA HR & CNW HR | Surface mounting, high precision thin film array<br>2 to 8 resistors by Array. PRA HR (same ohmic value) CNW HR (diff. ohmic value)<br>Range (Ohm): 100 - 1.0M; Tol. (± %): 0.05, 1<br>Power Rating (mW): 100/resistor; Temp. Coeff. (±10E-6/°C): 10<br>Terminations : Nickel, hot-solder dip finish<br>Variant(Type); Limit. Elem. Voltage (V); Size for Array with 8 resistors (max mm)<br>01 to 07 & 22 to 28 (PRA100); 35 ; 1.8 x 8.4 x 0.58<br>08 to 14 & 29 to 35 (PRA135); 75 ; 2.05 x 11.2 x 0.58<br>15 to 21 & 36 to 42 (PRA135); 3.2 ; 14.96 x 0.58<br>Operating Temperature Range (°C) : -55 to +155 | ESCC 4001/025 | SMD | • VISHAY S.A. div. SFERNICE | |
| 1 | SMV/SMR | SMD metal foil chip resistors<br><br>Variant Res. range (ohm) Tolerance (%) Temp. coefficient (ppm/°C)<br>01 (SMR-PW) 0.010 - 4.7 0.5 see Para. 1.4.2 of detail spec.<br>02 (SMV-PW) 0.0022 - 1.0 0.5 see Para. 1.4.2 of detail spec.<br><br>Dimensions max. (mm):<br>Variant 01 (2 terminals): 12.3 x 6.6 x 3.6<br>Variant 02 (4 terminals): 12.3 x 6.6 x 3.6<br>Operating temperature range: -55 to +140 °C | ESCC 4001/028 | SMD | • ISABELLENHUETTE HEUSLER GmbH & Co.KG | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | VCS1625 | Z-foil Wraparound Chip Resistors<br>Temperature coefficient: 2 ppm/°C typical<br>resistance range: 0.01 to 2 ohm<br>Tolerance: 0.5%, 1%<br>Power rating: 1 W | Data sheet 303119<br>+ EEE-INST-002 | CHIP | • VISHAY ISRAEL | Update |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | Heater | Resistor, Heater, Flexible, Single and double layer.<br>Maximum ohmic density: 200 ohm/cm2<br>Tolerances: ±2, 5 %<br>Resistance range: 1 to 5000 ohm<br>Heating area: 1.6 to 1300 cm2<br>Maximum heating side dimension: 60 cm<br>Terminal lead: 20, 22, 24, 26, 28, 30 AWG<br>Temperature range (10-6°C.): 175<br>Operating Temperature Range (°C.): -65 to +200. | ESCC 4009/002 | AS PER SPEC. | • IRCA-DIVISION RICA | |
| 2 | HEATERS FLEXIBLE | Single sided flexible heated, polymide coated<br>Operating temperature range: -200 to +200 °C | MINCO P.Q.02 Rev. 01 18/09/01 | N/A | • MINCO - SA | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 0805 PTC SMD, 150 ohms to 2K @ 25°C ohms available. 1% tolerance @ 25°C | 0805 PTC thermistor, end banded for solder attachment. 150 ohms through 2,000 ohms @ 25°C available. 1% @ 25°C tolerance. Parts tested to this specification shall be considered acceptable for use in space programs specifying quality level (Grade) 1 parts. | S-311-P-827 | 0805 | • QUALITY THERMISTOR INC. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 0805 NTC SMD, 50,000 ohms @ 25°C, 1% tolerance | 0805 NTC SMD, 50,000 ohms @ 25°C, 1% tolerance, surface mount, end-banded thermistor. Parts tested to this specification shall be considered acceptable for use in space programs specifying quality level (Grade) 1 parts. | S-311-P-827-01 | 0805 | • QUALITY THERMISTOR INC. | |
| 1 | 4006013*** | NTC, range 1000 to 100000 ohms @ +25 °C<br>temperature range -55 / +115 °C<br>nominal values and tolerances at +25 °C :<br>Var. 01 : 1000 ohm 0.88 %<br>Var. 02 : 2000 ohm 0.88 %<br>Var. 03 : 3000 ohm 0.88 %<br>Var. 04 : 4000 ohm 0.88 %<br>Var. 05 : 5000 ohm 0.88 %<br>Var. 07 : 100000 ohm 0.93 % | ESCC 4006/013 | AS PER SPEC. | • MEAS Ireland (Betatherm) Ltd. | New Variant 07 included |
| 1 | 4006014*** | NTC, range 2000 to 100000 ohms @ +25 °C<br>temperature range -40 / +160 °C<br>nominal values and tolerances at +25 °C :<br>Var. 08 : G15K4D489 15000 ohm 1.01 %<br>Var. 09 : G10K4D453 10000 ohm 2.00 %<br>Var. 12 : G100K6D487 100000 ohm 1.75 %<br>Var. 13 : G15K4D589 15000 ohm 1.01 % | ESCC 4006/014 | AS PER SPEC. | • MEAS Ireland (Betatherm) Ltd. | New Variants 12 and 13 included |
| 2 | 44900 Series | Leaded, Epoxy Encapsulated, Negative Temperature Coefficient<br>Pd (mW): 1 Tolerance (± %): 0.4 to 10<br>Range (Ohm @ 25°C): 2.2k, 3k, 5k, 10k, 30k<br>Package (max mm): S Variant DIA 2.40, T Variant DIA 2.80<br>Various Wires Definitions (Type & AWG)<br>Operating Temperature Range (°C): -55 to +90 | GSFC S-311-P-18 | AS PER SPEC. | • MEASUREMENT SPECIALTIES Ltd (YSI TEMPERATURE) | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA 2160/A101-2012B*** | Operating temperature range: -25 to+125°C<br>Nominal zero-power resistance range: 2.186k to 1.388M<br>Zero-power resistance tolerance: J (±5%) / K (±10%)<br>Nominal B value range: 2160K to 4800K<br>B value tolerance: G (±2%) / H (±3%) / J (±5%)<br>Heat dissipation constant (in air): approx. 1.3mW/°C<br>Thermal time constant (in air): approx. 2.5sec<br>Allowable operating power: 5mW<br>Rated power (25°C): 130mW<br>Size: L2.00mm x W1.25mm x H0.55mm | JAXA-QTS-2160/A101A | SMD | • TATEYAMA KAGAKU INDUSTRY CO., LTD. | 1) The following documents are available at JAXA Qualified EEE parts database. (https://eeepitnl.tksc.jaxa.jp/en/ )<br>- General specification : JAXA-QTS-2160, JAXA-QTS-2160 Appendix A<br>- Detail specification : JAXA-QTS-2160/A101A<br>- Application data sheet : JAXA-ADS-2160/A101A<br>2) As to Export License, Manufacturer will apply to METI (Ministry of Economy, Trade and Industry) for license in accordance with “Foreign Exchange and Foreign Trade Act (Law)” with information such as End User/End Use. |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | N1043/301 | Platinum probe sheath type thermal sensor<br>Nominal resistance: 1000±2ohm (at 0°C)<br>Source current: 5mA Max.<br>Operating temperature range: -260 to +135°C | JAXA-QTS-2180/103 | Probe Sheath | • Mitsubishi Heavy Industries, Ltd | New component |
| 1 | N1043/501 | Platinum surface type thermal sensor<br>Type; Operating Temp. Range; Nominal resistance<br>N1043/501-90-300; -260 to +400°C; 2000±4ohm (at 0°C)<br>N1043/501-91-600; -196 to +400°C; 500±1ohm (at 0°C)<br>Source current: 5mA Max.<br>Operating temperature range: -260 to +135°C | JAXA-QTS-2180/105 | SMD | • Mitsubishi Heavy Industries, Ltd | New component |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | N1043/401 | Platinum Extension Wire Sheath Type thermal sensor<br>Type; Length; Measured Temp Range; Operatimg Temp Range; Nominal Resistance (@0°C)<br>N1043/401-70-902-1; 43±1mm±; -18 to +930°C; -60 to +980°C; 100±0.5ohm<br>N1043/401-70-902-2; 84±1mm; -18 to +930°C; -60 to +980°C; 100±0.5ohm<br>N1043/401-70-902-3; 66±1mm; -18 to +930°C; -60 to +980°C; 100±0.5ohm<br>N1043/401-71-702-1; 84±1mm; -80 to +430°C; -120 to +430°C; 500±2.5ohm<br>Source current: 5mA Max. | JAXA-QTS-2180/104 | N/A | • Mitsubishi Heavy Industries, Ltd | New component |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N2219A | hFE min/max: 100/300 @ IC = 150 mA PD (mW): 800<br>BV CBO (V): 75 BV CEO (V): 40 IC (mA): 800<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5201/003 | TO39 | • STMicroelectronics | |
| 1 | 2N2222A | hFE min/max: 100/300 @ IC = 150 mA PD (mW): 500<br>BV CBO (V): 75 BV CEO (V): 40 IC (mA): 800 @10 us pulse<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5201/002 | LCCC3 | • STMicroelectronics | |
| 1 | 2N2484 | hFE min/max: 250/650 @ IC = 1 mA PD (mW): 360<br>BV CBO (V): 60 BV CEO (V): 60 IC (mA): 50<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5201/001 | LCCC3 | • STMicroelectronics | |
| 1 | 2N3019 | hFE min/max: 100/300 @ IC = 150 mA PD (mW): 800<br>BV CBO (V): 140 BV CEO (V): 80 IC (A): 1<br>Operating Temperature Range (°C.): -55 to +175 | ESCC 5201/011 | TO39 | • STMicroelectronics | |
| 1 | 2N3501L | hFE min/max: 100/300 @ IC = 150 mA PD (W): 1<br>BV CBO (V): 150 BV CEO (V): 150 IC (A): 0.3<br>Operating Temperature Range (°C.): -65 to +200 | MIL-PRF-19500/366 | TO205 | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 2N3700 | hFE min/max: 100/300 @ IC = 150 mA PD (mW): 500<br>BV CBO (V): 140 BV CEO (V): 80 IC (A): 1<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5201/004 | LCCC3 | • STMicroelectronics | |
| 1 | 2N5551 | hFE min/max: 80/250 @ IC = 10 mA PD (mW): 360<br>BV CBO (V): 180 BV CEO (V): 160 IC (mA): 500<br>Operating Temperature Range (C.): -65 to +200 | ESCC 5201/019 | LCCC3 | • STMicroelectronics | |
| 1 | 2N5666, 2N5667 | hFE min/max: 40/120 @ IC = 1 A (2N5666) PD (W): 1.2<br>hFE min/max: 25/75 @ IC = 1 A (2N5667) PD (W): 1.2<br>BV CBO (V): 250 BV CEO (V): 200 IC (A): 5 (2N5666)<br>BV CBO (V): 400 BV CEO (v): 300 IC (A): 5 (2N5667)<br>Operating Temperature Range (°C.): -65 to +200 | MIL-PRF-19500/455 | TO205 | • MICROSEMI LAWRENCE | Manufacturer Standardization |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N2905A | hFE min/max: 100/300 @ IC = -150 mA PD (mW): 600<br>BV CBO (V): -60 BV CEO (V): -60 IC (mA): -600<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5202/002 | TO39 | • STMicroelectronics | |
| 1 | 2N2907A | hFE min/max: 100/300 @ IC = -150 mA PD (mW): 400<br>BV CBO (V): -60 BV CEO (V): -60 IC (mA): -600 (-500 for LCC3)<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5202/001 | LCCC3 | • STMicroelectronics | |
| 1 | 2N3637 | hFE min/max: 100/300 @ IC = -50 mA pulsed PD (W): 1<br>BV CBO (V): -175 BV CEO (V): -175 IC (A): -1<br>Operating Temperature Range (°C.): -65 to +200 | MIL-PRF-19500/357 | TO-205 | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 2N3867S, 2N3868S | hFE min/max: 40/120 @ IC = -1.5 A (2N3867S) PD (W): 1<br>hFE min/max: 30/150 @ IC = -1.5 A (2N3868S) PD (W): 1<br>BV CBO (V): -40 BV CEO (V): -40 IC (A): -3 (2N3867S)<br>BV CBO (V): -60 BV CEO (v): -60 IC (A): -3 (2N3868S)<br>Operating Temperature Range (°C.): -65 to +200 | MIL-PRF-19500/350 | TO205 | • MICROSEMI LAWRENCE | Manufacturer Standardization |
| 1 | 2N5401 | hFE min/max: 60/240 @ IC = -10 mA PD (mW): 360<br>BV CBO (V): -160 BV CEO (V): -150 IC (mA): -500<br>Operating Temperature Range (C.): -65 to +200 | ESCC 5202/014 | LCCC3 | • STMicroelectronics | |
| 1 | 2N5415 | hfe = 30/120 @ Ic=50mA Pdmax. = 0,75 W @Tamb. = +25°C.<br>BV CBO = 200 V BV CEO = 200 V Ic = 1 A<br>Operating Temperature Range (°C.): -65 to +200 | MIL-PRF-19500/485 | TO39 | • MICROSEMI LAWRENCE | Manufacturer Standardization |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N5154 | hFE min/max: 70/200 @ IC = 2.5 mA PD (W): 8.75<br>BV CBO (V): 100 BV CEO (V): 80 IC (A): 5<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5203/010 | SMD .5 | • STMicroelectronics | |
| 1 | BUX77 | hFE min/max: 50/200 @ IC = 2 A PD (W): 40 (Var. 01-05), 35 (Var.06-07)<br>BV CBO (V): 100 BV CEO (V): 80 IC (A): 5<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5203/016 | TO257 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N5153 | hFE min/max: 70/200 @ IC = -2.5 mA PD (W): 10<br>BV CBO (V): -100 BV CEO (V): -80 IC (A): -2<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5204/002 | SMD .5 | • STMicroelectronics | |
| 1 | BUX78 | hFE min/max: 50/200 @ IC = -2 A PD (W): 40 (Var. 01-05), 35 (Var.06-07)<br>BV CBO (V): -100 BV CEO (V): -80 IC (A): -5<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5204/006 | TO257 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BUY10CS12J-01 | MOSFET, N-Channel<br>VGS=+-20V, V(BR)DS(min.)=100V<br>ID=12.4A, Rds(on)=130mohm (VGS=10V & ID=8A)<br>P_tot = 75W<br>Rth(j-c) = 1.66°C/W<br>Package: SMD0.5<br>Operating Temperature Range = 55 to +150°C | ESCC 5205/028 | SMD0.5 | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BUY25CS12J-01 | MOSFET, N-Channel<br>VGS=+-20V, V(BR)DS(min.)=250V<br>ID=12.4A, Rds(on)=130mohm (VGS=10V & ID=8A)<br>P_tot = 75W<br>Rth(j-c) = 1.66°C/W<br>Package: SMD0.5<br>Operating Temperature Range = 55 to +150°C | ESCC 5205/026 | SMD0.5 | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BUY25CS54A-01 | MOSFET, N-ChannelVGS=+-20V, V(BR)DS(min.)=250VID=54A, Rds(on)=30mohm (VGS=10V & ID=34A)P_tot = 250WRth(j-c) = 0.5°C/WPackage: SMD2Operating Temperature Range = 55 to +150°C | ESCC 5205/027 | SMD2 | • INFINEON TECHNOLOGIES A.G. | Special attention may need to be paid to the reliable mounting of this package type |
| 1 | JAXA R 2SK4048 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>ID=42 A, Rds(on)=18 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4049 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=14 A, Rds(on)=155 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4050 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>ID=15 A, Rds(on)=69 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4051 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=42 A, Rds(on)=33 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA R 2SK4052 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=33 A, Rds(on)=69 mohm @ VGS=12 V<br>Rth(ch-c)=1.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4053 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=14 A, Rds(on)=155 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4054 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=42 A, Rds(on)=45 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4055 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=27 A, Rds(on)=98 mohm @ VGS=12 V<br>Rth(ch-c)=1.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4056 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=12 A, Rds(on)=230 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4152 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=42 A, Rds(on)=17 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD2 | • Fuji Electric Device Technology Co., Ltd. | |
| 1 | JAXA R 2SK4153 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=39 A, Rds(on)=39 mohm @ VGS=12 V<br>Rth(ch-c)=0.83 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD1 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4154 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=15 A, Rds(on)=89 mohm @ VGS=12 V<br>Rth(ch-c)=1.67 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD0.5 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA R 2SK4155 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=42 A, Rds(on)=16 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD2 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4156 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=32 A, Rds(on)=62 mohm @ VGS=12 V<br>Rth(ch-c)=8.83 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD1 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4157 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=200 V<br>ID=14 A, Rds(on)=148 mohm @ VGS=12 V<br>Rth(ch-c)=1.67 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD0.5 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4158 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=42 A, Rds(on)=38 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD2 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4159 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=26 A, Rds(on)=91 mohm @ VGS=12 V<br>Rth(ch-c)=0.83 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD1 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4160 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=250 V<br>ID=12 A, Rds(on)=223 mohm @ VGS=12 V<br>Rth(ch-c)=1.67 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD0.5 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4185 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=23 A, Rds(on)=0.18 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | |
| 1 | JAXA R 2SK4186 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=10 A, Rds(on)=0.48 mohm @ VGS=12 V<br>Rth(ch-c)=1.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA R 2SK4187 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=4.5 A, Rds(on)=1.15 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4188 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=23 A, Rds(on)=0.18 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | SMD2 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4189 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=10 A, Rds(on)=0.48 mohm @ VGS=12 V<br>Rth(ch-c)=0.83 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | SMD1 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4190 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=500 V<br>ID=4.5 A, Rds(on)=1.15 mohm @ VGS=12 V<br>Rth(ch-c)=1.67 °C/W<br>Tch=150 °C | JAXA-QTS-2030/103 | SMD0.5 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4214 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=42 A, Rds(on)=24 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4215 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=35 A, Rds(on)=46 mohm @ VGS=12 V<br>Rth(ch-c)=1.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4216 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=130 V<br>ID=15 A, Rds(on)=96 mohm @ VGS=12 V<br>Rth(ch-c)=2.0 °C/W<br>Tch=150 °C | JAXA-QTS-2030/101 | TO-254 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4217 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>ID=42 A, Rds(on)=13 mohm @ VGS=12 V<br>Rth(ch-c)=0.5 °C/W<br>Tch=150 °C | | | • Fuji Electric Device Technology Co., Ltd. | Export documents required |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA R 2SK4218 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>ID=42 A, Rds(on)=28 mohm @ VGS=12 V<br>Rth(ch-c)=0.83 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD1 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | JAXA R 2SK4219 | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>ID=15 A, Rds(on)=64 mohm @ VGS=12 V<br>Rth(ch-c)=1.67 °C/W<br>Tch=150 °C | JAXA-QTS-2030/102 | SMD0.5 | • Fuji Electric Device Technology Co., Ltd. | Export documents required |
| 1 | STRH100N10F SY3HRB | MOSFET, N-channel<br>VGS=+-20 V, V(BR)DS(min.)=100 V<br>IDS=48 A, Rds(on)=35 mohm @ VGS=12 V<br>Rth(j-s)=0.73 °C/W<br>Tj=150 °C | ESCC 5205/021 | T0-254AA | • STMicroelectronics | TID tested capability of 70kRADs(Si) |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N7389 | VGS = ± 20V, Breakdown Voltage DS min. = -100 V, ID = -6.5 A<br>max. thermal resistance = 5 °C/W, max. rds = 0.3 ohms @ Vgs = 12 V<br>Operating Temperature Range (°C.): -55 to +150 | MIL-PRF-19500/630 | TO-205AF<br>LCC | • INTERNATIONAL RECTIFIER | |
| 1 | JAXA R 2SJ1A** | JAXA R 2SJ1A** is a planar type, P-channel enhancement MOSFET that consists of one chip and a seamless-welded hermetic seal package of metal CAN.Part type V DS I D I D(pulse) P D R DS(on) Package(**) (V) (A) (A) (W) Max(m Ohm) type01 -100 -42 -168 250 45 TO-25402 -100 -25 -100 125 97 TO-25403 -100 -11 -44 62.5 226 TO-25404 -100 -42 -168 250 38 SMD-205 -100 -29 -116 150 90 SMD-106 -100 -13 -52 70 219 SMD-0.507 -200 -35 -140 250 91 TO-25408 -200 -16 -64 125 210 TO-25409 -200 -7.5 -30 62.5 487 TO-25410 -200 -37 -148 250 84 SMD-211 -200 -18 -72 150 203 SMD-112 -200 -8.5 -34 70 480 SMD-0.5V GS= ±20 V , Ta=25 degree C , Tch=150 degree C | JAXA-QTS-2030 / 104 | TO-254, SMD-0.5, SMD-1, SMD-2 | • FUJI ELECTRIC CO. LTD | 1) The following documents are available at JAXA Qualified EEE parts database. ( https://eeepitnl.tksc.jaxa.jp/en/ )- General specification : JAXA-QTS-2030D- Detail specification : JAXA-QTS-2030/104- Application data sheet : JAXA-ADS-2030/1042) As to Export License, Manufacturer will apply to METI (Ministry of Economy, Trade and Industry) for license in accordance with “Foreign Exchange and Foreign Trade Act (Law)” with information such as End User/End Use. Special attention may need to be paid to the reliable mounting of SMD1 and SMD2 package types. |
| 1 | STRH40P10 | P-Channel 100V (Technology EHD-2b, double gate oxide structure 470 angstrom)<br>VGS= + - 20V, V(BR) DS (min) = -100V<br>IDS= -34A, Rds(on)= 75 mohm @ VGS=-12V<br>Rth(j-s)= 0.71°C/W<br>Tj= 150°C | ESCC N°5205/025 Issue 2 (Dec-2011) | TO-254AA | • STMicroelectronics | n/a |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2N2920A (NPN) | hFE min/max: 150/600 @ IC = 10 uA PD (mW): 500 (both section) BV CBO (V): 60 BV CEO (V): 60 IC (mA): 30 Operating Temperature Range (°C.): -65 to +200 | ESCC 5207/002 | LCC6 | • STMicroelectronics | |
| 1 | 2N3810 (PNP) | hFE min/max: 150/450 @ IC = -1 mA PD (mW): 600 (both section) BV CBO (V): -60 BV CEO (V): -60 IC (mA): 50 Operating Temperature Range (°C.): -65 to +200 | ESCC 5207/005 | LCC6 | • STMicroelectronics | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BFY180 | BV CBO (V): 15 BV CEO (V): 8 Ic (mA): 4.0<br>hFE min/max: 30/175 @ IC max = 0.25 mA Pout (mW): 30<br>Nf max: 3.2 dB @ 2 GHz MAG/MSG min: 12 dB @ 2 GHz<br>fT min: 7.0 GHz<br>Variant 01 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5611/006 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY181 | BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 20<br>hFE min/max: 55/175 @ IC max = 5.0 mA Pout (mW): 175<br>Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 13.5 dB @ 2 GHz<br>fT min: 7.0 GHz<br>Variant 03 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5611/006 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY183 | BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 65<br>hFE min/max: 55/160 @ IC max = 5.0 mA Pout (mW): 450<br>Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 12.5 dB @ 2 GHz<br>fT min: 7.0 GHz<br>Variant 05 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5611/006 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY193 | BV CBO (V): 20 BV CEO (V): 12 Ic (mA): 80<br>hFE min/max: 50/175 @ IC max = 30 mA Pout (mW): 580<br>Nf max: 2,9 dB @ 2 GHz MAG/MSG min: 12.5 dB @ 2 GHz<br>fT min: 7.0 GHz<br>Variant 06 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5611/006 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY280 | BV CBO (V): 8 BV CEO (V): 15 Ic (mA): 10<br>hFE min/max: 30/175 @ IC max = 0.25 mA Pout (mW): 80<br>Nf max: 2.9 dB @ 2 GHz MAG/MSG min: 13 dB @ 2 GHz<br>fT min: 7.0 GHz<br>Variant 02 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +200 | ESCC 5611/006 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY405 | BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 12<br>hFE min/max: 50/150 @ IC max = 2.0 mA Pout (mW): 55<br>Nf max: 1.8 dB @ 1.8 GHz Ic (mA): 2.0<br>fT min: 20 GHz<br>Variant 01 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +175 | ESCC 5611/008 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |
| 1 | BFY420 | BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 35<br>hFE min/max: 50/150 @ IC max = 20 mA Pout (mW): 160<br>Nf max: 1.7 dB @ 1.8 GHz Ic (mA): 5.0<br>fT min: 20 GHz<br>Variant 02 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +175 | ESCC 5611/008 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | BFY450 | BV CBO (V): 15 BV CEO (V): 4.5 Ic (mA): 100<br>hFE min/max: 50/150 @ IC max = 20 mA Pout (mW): 450<br>Nf max: 2.0 dB @ 1.8 GHz Ic (mA): 10<br>fT min: 18 GHz<br>Variant 03 of ESCC spec.<br>Operating Temperature Range (°C.): -65 to +175 | ESCC 5611/008 | MICRO X | • INFINEON TECHNOLOGIES A.G. | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | CFY 67 CFY 67_08 | Pseudomorphic HEMT<br>Vds (V): 3.5 Vdg (V): 4.5 Id (mA): 60<br>NF <= 0.8 dB Ga >= 11 dB @ 12 GHz (Variant 01 and 03)<br>NF <= 1.0 dB Ga >= 10.5 dB @ 12 GHz (Variant 02 and 04)<br>Ptot (mW): 200<br>Operating Temperature Range (°C.): -65 to +150 | ESCC 5613/004 | MICRO X | • INFINEON TECHNOLOGIES A.G. | Rrecommended for applications in X and Ku bands |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 3901001**B | Low Frequency, Polyimide Insulation<br>Voltage Rating, maximum (Vrms): 600<br>Insulation Type: Polyimide/Kapton, Light weight<br>Wire size AWG 26 to 12, shielded and jacketed wires only, up to 3 cores<br>Operating Temperature Range (°C): -100 to +200C | ESCC 3901/001 | N/A | • AXON'CABLE | |
| 1 | 3901002**B | Low Frequency, Polyimide Insulation<br>Voltage Rating, maximum (Vrms): 600<br>Insulation Type: Polyimide/Kapton, medium weight<br>Wire size AWG 28 to 18, single finished wires unjacketed and unshielded<br>Operating Temperature Range (°C): -100 to +200C | ESCC 3901/002 | N/A | • AXON'CABLE | |
| 1 | L45493-R3901-A18*-** | Wire size AWG 12 to 26, shielded and unshielded up to 7 cores | ESCC 3901/018 | N/A | • LEONI SPECIAL CABLES GmbH | |
| 1 | L45493-R3901-A21*-** | Wire size AWG 12 to 26, shielded and unshielded up to 7 cores | ESCC 3901/021 | N/A | • LEONI SPECIAL CABLES GmbH | |
| 1 | MTV-BTV | Low Frequency, PTFE/Polyimide Insulation<br>Voltage Rating, maximum (Vrms): 600<br>Insulation Type: Extruded PTFE for flexibility<br>Wire size AWG 30 to 18, shielded and unshielded, up to 5 cores<br>Operating Temperature Range (°C): -100 to +200C | ESCC 3901/013 | N/A | • NEXANS | |
| 1 | Series 55 | Low Frequency, 600V, Silver-plated Copper, Extruded Crosslinked Fluoropolymer Insulation.<br>Voltage Rating (max Vrms): 600<br>Wire size ISO 001, 002, 004, 006, 010, 012, 020, 030, shielded and unshielded , up to 4 cores<br>Operating Temperature Range (°C): -100 to +200C | ESCC 3901/012 | N/A | • TYCO ELECTRONICS UK Ltd. | |
| 1 | SPL | Low Frequency, Polyimide Insulation.<br>Voltage Rating, maximum (Vrms): 600<br>Insulation Type: Polyimide/Expanded PTFE<br>Wire size AWG 28 to 12, shielded and unshielded, up to 7 cores<br>Operating Temperature Range (°C): -200 to +200C | ESCC 3901/019 | N/A | • W.L.GORE & Associates GmbH | |
| 1 | SPM | Low Frequency, Polyimide/Fluorthermoplast.<br>Voltage Rating, maximum (Vrms): 600<br>Wire size AWG 30 to 12, shielded and unshielded, up to 7 cores<br>Operating Temperature Range (°C): -200 to +200C | ESCC 3901/018 | N/A | • W.L.GORE & Associates GmbH | |
| 1 | SPP | Power Wires for Crimping, Low Frequency<br>Voltage Rating, maximum (Vrms): 600<br>Insulation Type: Expanded PTFE Tape<br>Wire size AWG 4 and 8<br>Operating Temperature Range (°C): -200 to +200C | ESCC 3901/017 | N/A | • W.L.GORE & Associates GmbH | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 50CIS | Coaxial, double shield coaxial, shielded and jacketed coaxial.<br>Miniature, 50 Ohms, PTFE Dielectric, Polyimide Jacket<br>Maximum Voltage: 900 Vrms<br>Operating Temperature Range (°C): -100 to + 200 | ESCC 3902/001 | N/A | • NEXANS | |
| 1 | GCX, GTX, GSC, GBL | Flexible, Coaxial, Triaxial and Symmetric Cables, -200 to +180ºC<br>Variants 03 to 06 (Coaxial), 10 to 13 (Triaxial) and 20 to 30 (shielded line)<br>Operating Voltage (Continuous), maximum ratings, (Vrms):<br>Variants 03 180<br>Variants 04,10,21,22,23,24,26 to 30 200<br>Variants 06,25 250<br>Variants 05,11 to 13,20 300<br>AWG Range: 20, 22, 24, 26, 28, 30 dependent on variant<br>Temperature range (°C): -200 to +180 | ESCC 3902/002 | N/A | • W.L.GORE & Associates GmbH | Max AWG 28 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 14xxxxxx | Power transformer based on EFD, RM or  toroidal cores.Temperature range: -55°C to +120°CDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD-981Mechanical Shock: 1000G | FT08690020 | THM, SMT (Flying leads optional) | • Flux A/S | Qualification samples: Q7, Q9, Q10 |
| 2 | 19xxxxxx | Power transformer assembly based on RM and toroidal cores.Temperature range: -55°C to +120°CDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD-981Mechanical Shock: 1000G | FT08690020 | SMT (THM optional) | • Flux A/S | Qualification sample: Q24 |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | 14xxxxxx | Double aperture RF transformer.Temperature range: -55ºC to +120ºCDielectric Withstanding Voltage 500V rms (unless agreed otherwise)Qualified in accordance with MIL-STD-981Mechanical Shock: 1000G | FT08690020 | Flying leads (THM & SMT optional) | • Flux A/S | Qualification sample: Q12 |
| 2 | DBIT | DBIT Transformers 1553, moulded<br>Min. Impedance: 3Kohm  Max Leakage Inductance: 6uH<br>Size max (mm): 16 X 16 X H<br>DBIT-X-7P10. H(max): 17mm. Through Hole<br>DBIT-X-3S. H(max): 3,81mm. SMD<br>DBIT-X-5S. H(max): 5mm. SMD<br>DBIT-X-7S. H(max): 7mm. SMD<br>DBIT-X-7P. H(max): 11mm. Through Hole<br>Operating temperature range (°C.): -55 to +125 | MSP-003 | AS PER SPEC. | • MICROSPIRE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | T3 | Microswitches, Sensitive, 1PDT<br>Contact Rating: 4A, 28 Vdc, Contact Configuration SPDT<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3701/003 | AS PER SPEC. | • ABB ENTRELEC | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 47 | Contact Configuration SPST, Contact Rating: 4A, 30 Vdc<br>Difference between contact opening temp. and closing temp. (°C max):<br>For switching temp < -31°C 10<br>For -30 < switching temp > +79°C 5 or 10<br>For switching temp > +80°C 15<br>Variant 02<br>Dimensions (max., mm.) : 16.2 DIA, 11.5 height<br>Minimum temperature gradient: 0.11 deg.C/minute<br>Operating Temperature Range (°C): -50 to + 150 | ESCC 3702/001 | AS PER SPEC. | • COMEPA | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | Coaxial ISOLATOR/CIRCULATOR T10 family | Low power coaxial isolators and circulators X to Ka band (7.9 GHz - 21.5 GHz) in T10 package developed and manufactured by Cobham Microwave - detail specification 60102965-069- PID 60102960-085 | 60102965-069 | T10 / SMA connectors | • CHELTON TELECOM & MICROWAVE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | Coaxial Attenuators | R.F. Attenuators, Fixed, Coaxial.<br>Frequency Range (GHz): 0 - 22<br>Attenuation value range (dB): 0 - 20<br>Operating Temperature Range (°C): -55 + 125 | ESCC 3403/005 | AS PER SPEC. | • RADIALL | |
| 2 | R4042106 | RF coaxial load<br>50W, DC to 18GHz, 1W<br>SMA male connector<br>Operating temperature range: -55 to +125 °C | ESCC 3403/004 | SMA connector | • RADIALL | |
| 2 | R4043706 | RF coaxial load<br>50W, DC to 18GHz, 2W<br>TNC male connector<br>Operating temperature range: -55 to +125 °C | ESCC 3403/010 | TNC connector | • RADIALL | |
| 1 | RF Coaxial Loads | Passive Devices, RF, Coaxial, Loads<br>Frequency Range (GHz): 0 - 22<br>Rated P (in) (W): 1 Impedance (Ohm): 50<br>VSWR (Max.):<br>Type 0<f(GHz)<= 4; 4<f(GHz)< = 12.4; 12.4<f(GHz)< = 18; 18<f(GHz)<= 22<br>1 1.05 1.10 1.15 1.20<br>2 1.05 1.15 1.20 1.25<br>Operating Temperature Range (°C): -55 to + 125 | ESCC 3403/006 | AS PER SPEC. | • RADIALL | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | 8090.0832.G03 | Pulse Width Modulator Controller for DC/DC Converters for flyback, forward, push-pull and half bridge topologies, primary supply voltage range: 18 to 110V, Iout=1 mA for Vref @ 2.5 and 5.0V, Max. oscillator frequency: 250 kHz, Under-voltage lockout with hysteresis, Over-voltage protection, Ccurrent comparator, Voltage loop, Soft-start, Adjustable, Surface Mount, Hermetically Sealed, | 8090.0832-1, Issue 2.5, 23/03/2009 | CQFP-84 | • Thales Alenia Space - ETCA | According to PID 9100.0683, Issue 4.5 dated 10/09/2010 and HTIF HYB-GEN-ES-0017-01-02-HTIF-80900832G03, Issue 1.2 dated 20/08/2010 |
| 2 | A0000055 (H757) | Thick Film Hermetic Hybrid - MIL-STD-1553B Dual Transceiver (Integrated MIL-STD-1553B Dual Complete Transmitter + MIL-STD-1553B Dual Complete Receiver) Operational Rated Temperature -30 to +85 °C | DPN-A5-ST-0426 Ed.02 Rev.00 | Metallic FP-46 | • Astrium Velizy | PID GM.HYBR.NT.220.V.MMS Ed.13 Rev.00 |
| 2 | A0005367 | Thick Film Hermetic Hybrid - MIL-STD-1553B Remote Terminal Coupler (Integrated MIL-STD-1553B Single Transceiver + MIL-STD-1553B Remote Terminal ASIC) Operational Rated Temperature -30 to +85 °C | A5-PS-CA5-491-MMV Ed.00 Rev.0+DPN-A5-ST-0376 Ed 01(ASP20-RT) | Metallic FP-64 | • Astrium Velizy | PID GM.HYBR.NT.220.V.MMS Ed.13 Rev.00 |
| 2 | MCM 21020 DSP BR334 (A0008778) | Multi-chip Module Digital Signal Processor 21020 (TSC21020E floating-point DPS + DPC co-prpcessor + 128 kwords on-module SRAM + cascadable timers, full duplex UARTs, 1355 serial links, watchdog timers and PWM channels). Operational Rated Temperature -30 to +85 °C | MCM-DSP-SPEC-DA0018353-V-ASTR Ed.00 Rev.06 | CQFP-334 | • Astrium Velizy | PID GM.HYBR.NT.879.V.ASTR Ed.03 Rev 00. Det. Spec. is MCM DSP21020 Procurement specification. Replaces the old version MCM2102-A0005305 (obsolete) |
| 2 | MCM ERC32 (A0008608) | Multi Chip Module Software processing module (20 Mips at 25 MHz) based on a CPU core embedding the ERC32SC, VASI ASIC chip and memories Operational Rated Temperature -30 to +85 °C | MCM-ERC32-SP-00306-V-ASTR Ed.00 Rev.01 | Dual-cavity co-fired | • Astrium Velizy | PID GM.HYBR.NT.879.V.ASTR Ed.03 Rev 00. Det. Spec. is MCM ERC32 procurement specification. |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | AGT-01 | Cascadable Amplifier (5-250 MHz)<br>High Gain two stage 31 dB<br>Medium output level +8.5 dBm<br>Low VSWR < 1.3:1<br>Supply power range +8V to +15V | TD200368-178 | TO-8 | • CHELTON TELECOM & MICROWAVE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 1 | JAXA2020/01011DBCR** | Non isolated synchronous point of load (POL) DC/DC converter.<br>Input voltage range: 4.5V to 16V.<br>Adjustable output voltage : 1.2V to 3.3V (Preset:1.2V, 1.5V, 1.8V, 2.5V, 3.3V)<br>Output current: 0A to 3A(Vout=1.2V to 1.8V), 0A to 2.6A(Vout = 2.5V), 0A to 2A(Vout=3.3V)<br>Operating Temperature Range (Case) : -55°C to 125°C (ID number:00 to 04)<br>Size and weight : 15mm x 19mm (thickness:6mm), 7.2g maximum<br><br><Line-up of JAXA2020/01011DBCR** (** means the part type)><br>part type circuit<br>00 1.8V/3A output (std.)<br>01 1.2V/3A output<br>02 1.5V/3A output<br>03 2.5V/2.6A output<br>04 3.3V/2A output<br>05 1.2V/3A output<br>06 1.5V/3A output<br>07 1.8V/3A output<br>08 2.5V/2.6A output<br>09 3.3V/2A output<br>05-09 are the customized type which can reduce the number of external capacitors more than the standard type(00) or other lineup models(01-04). | JAXA-QTS-2020/0101A | 26-lead, flat package | • Avionics Fukushima Co.,Ltd. | 1) The following documents are available at JAXA Qualified EEE parts database. ( https://eeepitnl.tksc.jaxa.jp/en/ )<br>- General specification : JAXA-QTS-2020B<br>- Detail specification : JAXA-QTS-2020/0101A<br>- Application data sheet : JAXA-ADS-2020/0101A<br>2) As to Export License, Manufacturer will apply to METI (Ministry of Economy, Trade and Industry) for license in accordance with “Foreign Exchange and Foreign Trade Act (Law)” with information such as End User/End Use. |
| 2 | MRF-01 | Image Reject Mixer, variant V1=RF>LO, variant V2=RF<LO, LO to RF@1500 to 1650MHz=28 dB min., LO to IF@90 to 1510MHz= 35 dB min., Image Reject Ratio = 20 dB min., Hermetically Sealed, Ceramic Flatpack Package.<br><br>Operating temperature range: -55 to +125 °C | TD200450-178D | FP | • CHELTON TELECOM & MICROWAVE | |
| 2 | MXF-01 | Double Balanced Mixer (0.5 to 500 MHz), Conversion Loss: 7 dB max., Isolation: LO to<br>RF, LO to IF @ midband: 35 dB min., RF to IF @ midband: 25 dB min., Hermetically Sealed.<br>Operating Temperature Range: -55 to +125 °C | TD200369-178 Issue a | FP | • CHELTON TELECOM & MICROWAVE | |
| 2 | MXF-02 | Double balanced Mixer<br>10 to 1500 MHz<br>Operating temperature range: -55 to +125 °C | TD200370-178 Issue a | FP | • CHELTON TELECOM & MICROWAVE | |

| EPPL Part | Part Type | Description | Detail Specification | Package | Manufacturer(s) | Remarks |
|---|---|---|---|---|---|---|
| 2 | MXF-03 | Termination Insensitive Mixer (1 to 3500 MHz), Isolation:LO to RF and LO to IF: 20 dB min. and RF to IF : 18 dB min., SSB Conversion Loss (RF to IF [60MHz] port): from 7.8 to 9.8 dB max., 3rd order intermodulation ratio degradation @ IF VSWR 3: 1: 3 dB typ., Hermetically Sealed, Metal Flatpack package.<br><br>Operating Temperature Range: -55 to +125 °C | TD200542-178 Issue B | FP | • CHELTON TELECOM & MICROWAVE | |