TRANSISTORS, POWER, MOSFET, N-CHANNEL, BASED ON TYPE BUY **CS***				**319E**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	Aug 2012
		Remarks These devices have a TID tested capability of 100 kRad (Si) SEE tested : LET (MeV-cm^2/mg) 56 @ V_{GS} = -10V, V_{DS} = 250V SOA and SE SOA derating graphs are incorporated in the Detail Specifications.		
5205/026, 5205/027, 5205/028, 5205/030				
Qualified range: 5205/026 — variants 01R, 02R 5205/027 — variant 01R 5205/028 — variant 01R 5205/030 — variants 01R, 02R, 03R				

TRANSISTORS, POWER, MOSFET, N-CHANNEL, RADHARD BASED ON TYPE BUY 15CS	**339C**

Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5205/031	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	May 2016
		Remarks		

Qualified range:

All Variants are qualified.

Package:SMD0.5, SMD2, TO-254AA, TO-257AA

Maximum ratings:

$r_{DS(ON)}$ (mΩ) @ 25 ºC	150
I_{DS} (A)	23
V_{DS} (V) max.	150
V_{GS} (V) max.	±20
P_{tot} (W)	75
$R_{th(j-c)}$ (ºC/W)	1.66

These devices have a TID tested capability of 100 kRad (Si)
SEE tested : LET (MeV-cm^2/mg) 56 @ V_{GS} = -10V, V_{DS} = 250V
SOA and SE SOA derating graphs are incorporated in the Detail Specifications.

Operating Temperature Range (°C): Top = - 55 to +150

TRANSISTORS, POWER, MOSFET, N-CHANNEL, RADHARD BASED ON TYPE BUY 06CS				**363A**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5205/032	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	January 2020
		Remarks		

Qualified range:

Variants 01, 02, 03 and 04 based on types BUY06CS35J-01, BUY06CS80A 01,BUY06CS23K-01 and BUY06CS45B-01 are qualified.

Package:SMD0.5, SMD2, TO-254AA, TO-257AA

These devices have a TID tested capability of 100 kRad (Si)
SOA derating graphs are incorporated in the Detail Specification.

Operating Temperature Range (°C): Top = - 55 to +150

TRANSISTORS, POWER, MOSFET, N-CHANNEL, RAD-HARD BASED ON TYPES BUY65CS08J-01, BUY65CS28A-01				**360A**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5205/033	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	May 2020
		Remarks		

Qualified range:

Variants 01 and 02 are qualified.

Variant Number	Based on Type	I_{DS} @ $T_{case} \leq +25°C$ max (A) (Note 1)	I_{DS} @ $T_{case} = +100°C$ max (A) (Note 1)	$r_{DS(on)}$ @ $T_{amb} = +25°C$ max (mΩ) (Note 2)	Case (Note 3)	Terminal Material and Finish (Note 4)	Weight max (g)	Total Dose Radiation Level Letter (Note 5)
01	BUY65CS08J-01	8	5	450	SMD0.5	Q14	1.1	R [100kRAD(Si)]
02	BUY65CS28A-01	28	18	150	SMD2	Q14	3.3	R [100kRAD(Si)]

Notes 1-5 are included in the Detail specification.

Maximum ratings:

Variant number	01	02
V_{DS} (Vdc)	650 V	650 V
V_{GS} (Vdc)	± 20 V	± 20 V
P_{TOT}	75 W	215 W

SOA derating graphs are incorporated in the Detail Specification.

Operating Temperature Range (°C): Top = - 55 to +150

6.12.4 RF/Microwave, NPN, Low Power, Low Noise

TRANSISTORS, MICROWAVE, SMALL SIGNAL, BIPOLAR, BASED ON TYPE BFY 193				**230K**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5010 Detail ESCC 5611/006	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	Jun 1996
		Remarks		

Qualified range:

Variants 01 to 09

Characteristics for BFY 193:

V_{CEO} (V) max.		12	
V_{CBO} (V)max.		20	
h_{FE} min/max.		50/175	@ VCE = 8.0 V, IC = 30mA
NF (dB) max.	@ 2 GHz	2.9	@ VCE = 5.0 V, IC = 15mA
MAG/MSG (dB) min.	@ 2 GHz	12.5	@ VCE = 5.0 V, IC = 40mA
f_T (GHz) min.	@ 500 MHz	6.5	@ VCE = 5.0 V, IC = 40mA

Package: “ Micro-X1”

Total Power Dissipation (P_{tot}) = 580 mW

Operating Temperature Range (°C): Top = - 65 to +200

TRANSISTORS, MICROWAVE, SMALL SIGNAL, BIPOLAR, BASED ON TYPE BFY 450				**245K**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5010 Detail ESCC 5611/008	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	Jun 1997
		Remarks		

Qualified range:

Variants 01, 02 and 03 are qualified.

Characteristics for BFY 450:

V_{CEO} (V) max.		4.5	
V_{CBO} (V)max.		15	
I_C (mA) max.		100	
I_B (mA) max.		10	
h_{FE} min/max.		50/150	@ VCE = 1.0 V, IC = 20mA
NF (dB) max.	@ 1.8 GHz	2.0	@ VCE = 2.0 V, IC = 10mA
f_T (GHz) min.	@ 1.0 GHz	18	@ VCE = 3.0 V, IC = 90mA

Package: “ Micro-X1”

Total Power Dissipation (Ptot) = 450 mW

Operating Temperature Range (°C): Top = - 65 to +175

TRANSISTORS, MICROWAVE, SMALL SIGNAL, BIPOLAR, BASED ON TYPES BFY 640, 640B, 650B and 740B				**322E**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5010 Detail ESCC	Infineon Technologies AG Neubiberg Germany	Qualification	DLR	Jun 1997
		Remarks This certificate, from its issue B, release in May 2016, includes in its scope of qualification some devices previously listed in the QPL under certificates No. 320 and 321, which are no longer maintained.		
5611/009, 5611/010, 5611/011				
Qualified range: 5611/009: variants 01, 02, 03 5611/010: variants 01, 02, 03, 04, 05 5611/011: variant 01, 02				