6.4 DIODES (04)

6.4.1 Switching

DIODES, SWITCHING, BASED ON TYPE 1N6640U AND 1N6642U	**311C**

Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5101/026 5101/027	STmicroelectronics Rennes France	Qualification	CNES	May 2011
		Remarks		

Qualified range:

Type	Variants	V_{BR} (V)	V_{RWM} (V)	I_{FSM} (A)	Case
1N6640U	07, 08	75	75	2	LCC2-D
1N6642U	07, 08	100	100	2	LCC2-D

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

6.4.2 Power Rectifier

DIODES, POWER RECTIFIER, BASED ON TYPES 1N5806U AND 1N5811U				**297D**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5101/013 5101/014	STmicroelectronics Rennes France	Qualification	CNES	Nov 2009
		Remarks		

Qualified range:

ESCC	Type	Variants	V_{BR} (V)	V_{RWM} (V)	I_{FSM} (A)	Case
5101/014	1N5806U	13, 14	160	150	33	LCC2-A
5101/013	1N5811U	11, 12	160	150	100	LCC2-B

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

DIODES, POWER SCHOTTKY, BASED ON TYPES 1N5819U AND 1N5822U				**302D**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5106/020 5106/021	STmicroelectronics Rennes France	Qualification	CNES	Sep 2010
		Remarks		

Qualified range:

Variants 01 and 02 of 5106/020 and Variants 02 and 03 of 5106/021 are qualified

Type	V_{RWM} (V)	dV/dt (V/µs)	I_R (µA) @V_R=40	I_{FSM} (A)	I_O (A) @ Tamb
1N5819U	40	10 000	15 (DC)	25	1
1N5822U	40	10 000	80 (pulse)	80	3

Package Type: LCC2-B

Operating Temperature Range (°C): -65 to +150

DIODES, POWER, SCHOTTKY BARRIER, BASED ON TYPE STPS20100				**272H**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC	STmicroelectronics Rennes France	Qualification	CNES	Nov 2002
		Remarks		

5106/016, 5106/017, 5106/018, 5106/019, 5106/023

Qualified range:

ESCC Comp. No.	Variants	Package types	Based on
5106/016	05, 06. 07, 11	TO-254, SMD0.5, SMD1	STPS20100
5106/017	01, 02	SMD0.5	STPS1045S
5106/018	02	SMD1	STPS6045
5106/019	03, 05	TO254, SMD1	STPS40100
5106/023	01,02	SMD0.5	STPS60A150 STPS80A150

Maximum Ratings for 5106/016

V_{RRM}	100 V
I_O	2 x 20 A
dV/dt	10000 V/µs
Tj	+ 175 °C

DIODES, SILICON, POWER RECTIFIER, HIGH EFFICIENCY, FAST RECOVERY, BASED ON TYPES BYW81 AND BYV54				**274G**
Procurement Specifications	Manufacturer	Nature of Approval	Supervising Authority	Initial Qualification Date
Generic ESCC 5000 Detail ESCC 5103/029 5103/031 5103/032	STmicroelectronics Rennes France	Qualification	CNES	Aug 2003
		Remarks		

Qualified range:

5103/029 variants 05, 07 and 08 are qualified (type BYW81-200),
package types TO254 and SMD0.5

5103/031 variant 02 to 05 are qualified (type BYV54-200),
package types TO254 and TO254AA

5103/032 variant 1 is qualified (type STTH60400),
package type SMD1