Schottky Diodes

Features

High frequency operation
Low forward voltage drop
High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
Guard ring for enhanced ruggedness and long term reliability
Solder dip 275 °C max. 7s, per JESD 22-B106

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection

Mechanical Data

Package: R-6
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
Polarity: Color band denotes cathode end

Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	15SQ045
Device Marking Code			15SQ045
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25	I_O	A	15
Surge(Non-repetitive)Forward Current @60Hz half sine wave, 1 cycle, Ta=25	I_{FSM}	A	235
Current Squared Time @1ms t 8.3ms Tj=25	I^2t	A^2s	229
Storage Temperature	T_{stg}		-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations without reverse bias, t 1 h (Fig. 1)	T_j		-55 ~+200

NOTE

Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	15SQ045
	I_{RRM3}		$V_{RM}=V_{RRM}$ T_a=125	20

Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
15SQ045	Approximate 1.788	500	10	5000	Tape
15SQ045	Approximate 1.788	1000	4	4000	Reel

Characteristics (Typical)

FIG1:Io -Tc Curve

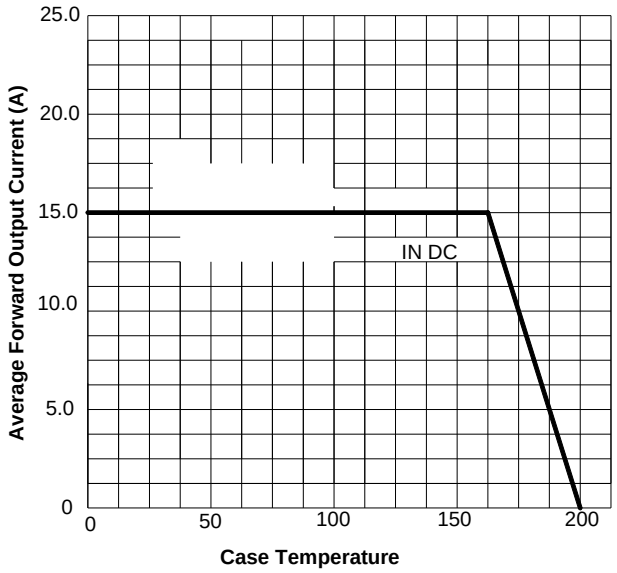
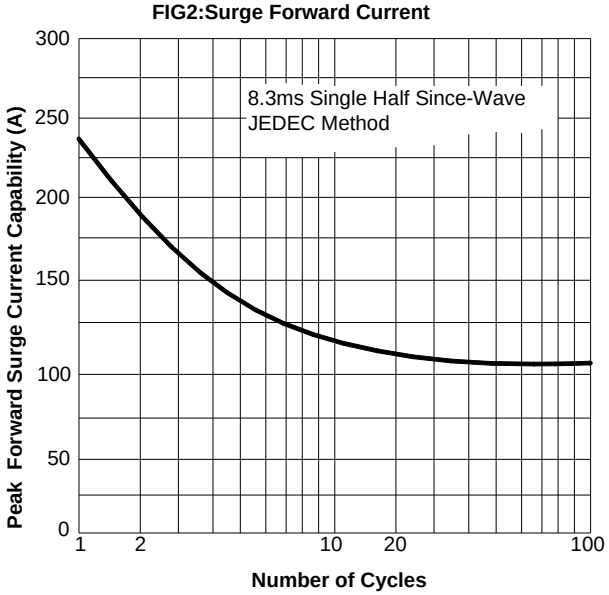


FIG2:Surge Forward Current



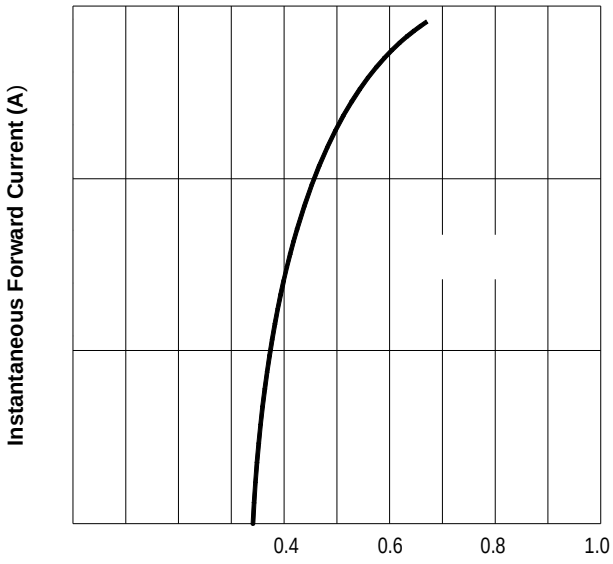
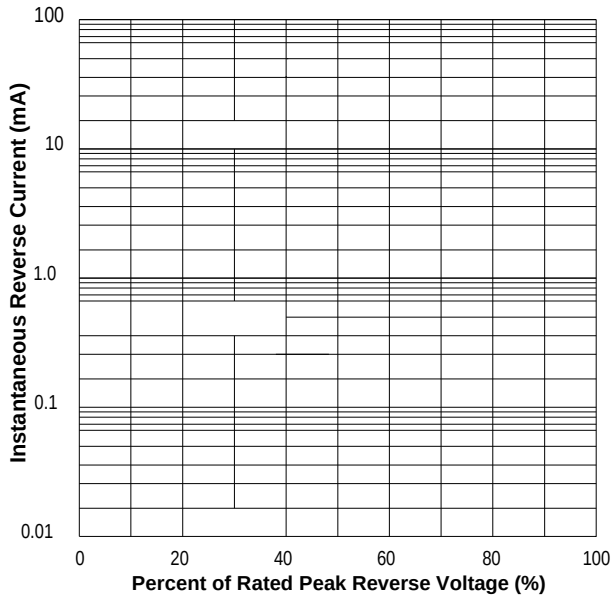
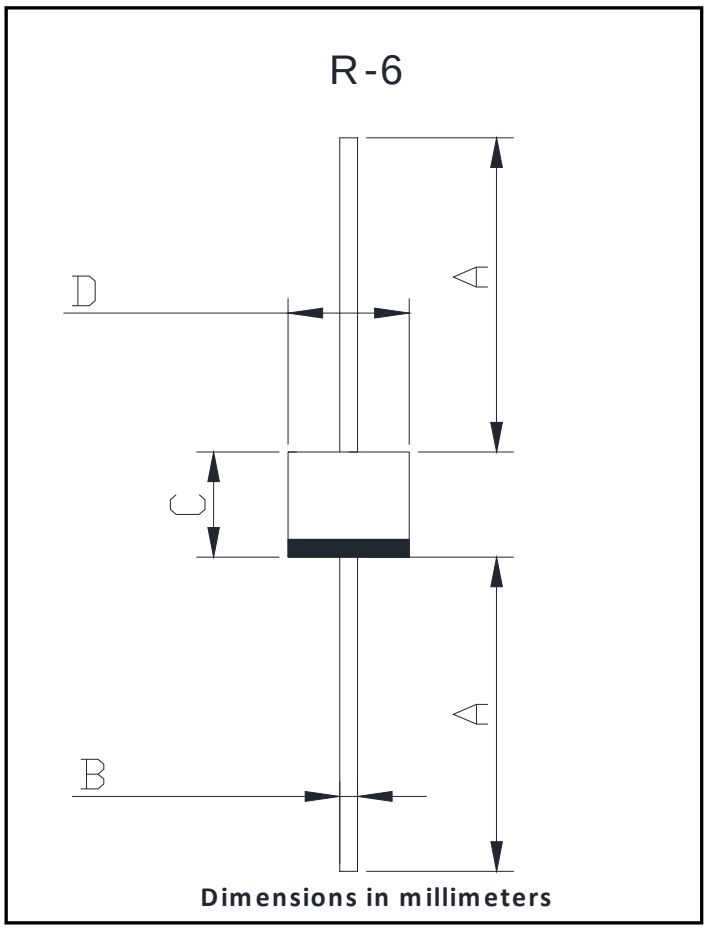


FIG4: Typical Reverse Characteristics



Outline Dimensions



R-6		
Dim	Min	Max
A	25.4	/
B	1.2	1.3
C	8.6	9.1
D	8.6	9.1

Disclaimer

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