

VOLTAGE RANGE: 30- 100V

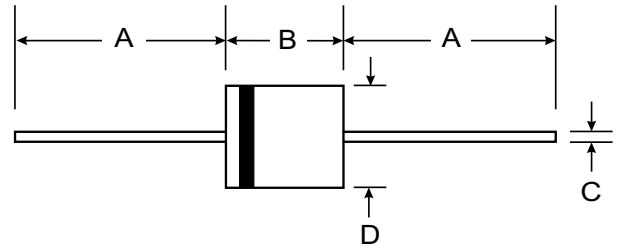
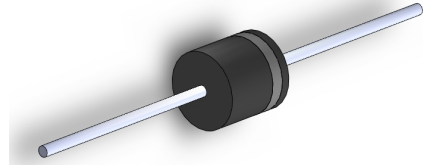
CURRENT: 12 A

Features

- Metal of silicon rectifier , majority carrier conduction
- Guard ring for transient protection
- Low power loss,high efficiency
- High current capability,low VF
- High surge capacity

Mechanical Data

- Case:R-6 Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Indicates Cathode
- Approx. Weight: 1.7 grams
- Mounting Position: Any



R-6		
Dim	Min	Max
A	25.4	—
B	8.6	9.1
C	1.2	1.3
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	12SQ030	12SQ035	12SQ040	12SQ045	12SQ050	12SQ060	12SQ080	12SQ100	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	VRMS	21	24.5	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	VDC	30	35	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current @Tc=95 °C	I(AV)	12								A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	IFSM	275								A
Peak Forward Voltage at 12A DC(Note1)	VF	0.55				0.7		0.8		V
Maximum DC Reverse Current @Tj=25°C at Rated DC Bolcking Voltage @Tj=100°C	IR	0.5 50								mA
Typical Junction Capacitance (Note2)	CJ	450								pF
Typical Thermal Resistance (Note3)	R JC	3.0								°C/w
Operating Temperature Range	TJ	-55 to+200								°C
Storage Temperature Range	TSTG	-55 to+200								°C

NOTES:1.300us Pulse Width, 2%Duty Cycle.

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal Resistance Junction to case.

FIG.1-FORWARD CURRENT DERATING CURVE

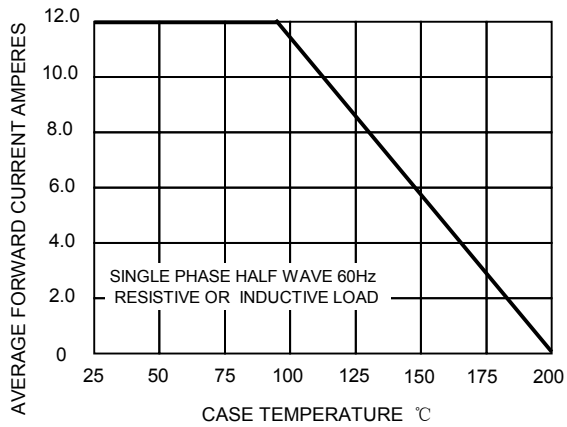


FIG.2-MAXIMUM NON-REPETITIVE SURGE

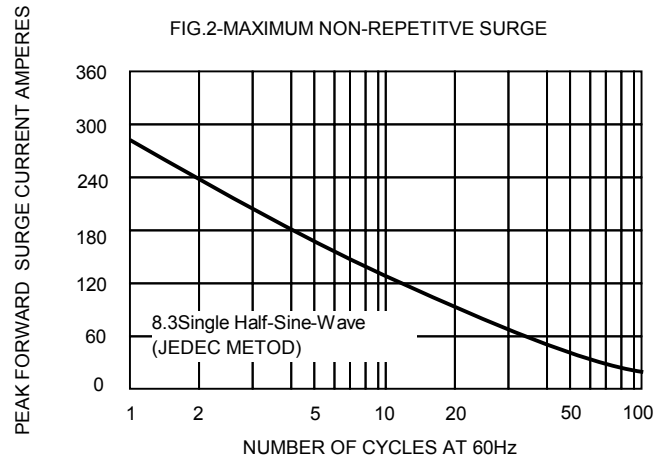


FIG.3-TYPICAL REVER CHARACTERISTICS

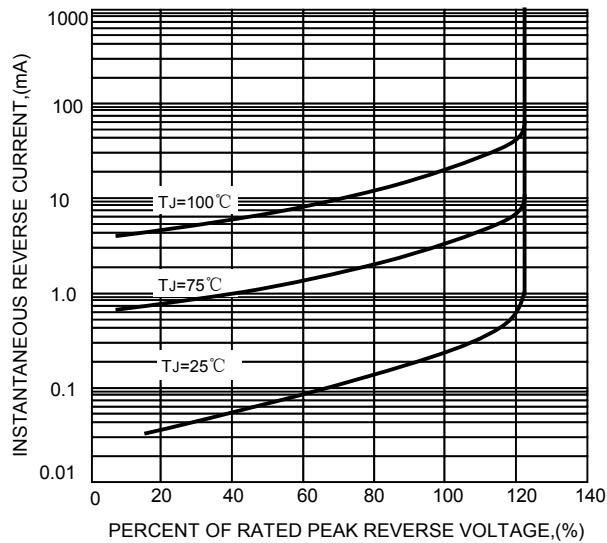


FIG.4-TYPICAL FORWARD CHARACTERISTICS

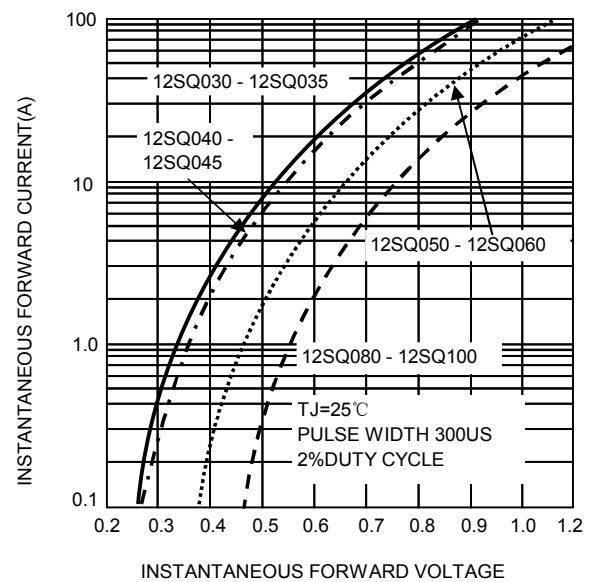


FIG.5-TYPICAL JUNCTION CAPACITANCE

