

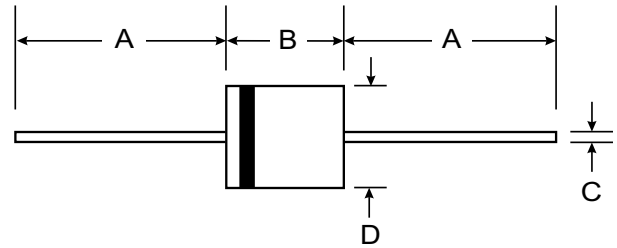
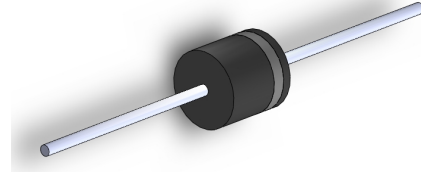
VOLTAGE RANGE: 30- 100V
CURRENT: 12 A

Features

- Metal of silicon rectifier, majority carrier conduction
- Guardring 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 Denotes Cathode
- Weight: 0.07 ounces, 2.1 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	SB1230	SB1235	SB1240	SB1245	SB1250	SB1260	SB1280	SB12100	Unit	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	35	40	45	50	60	80	100	V	
Maximum RMS Voltage	V _{RMS}	21	24.5	28	31.5	35	42	56	70	V	
Maximum DC Blocking Voltage	V _{DC}	30	35	40	45	50	60	80	100	V	
Maximum Average Forward Rectified Current @T _c =95 °C	I _(AV)	12								A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I _{FSM}	275								A	
Peak Forward Voltage at 12A DC(Note1)	V _F	0.55			0.7		0.8			V	
Maximum DC Reverse Current @T _j =25°C at Rated DC Blocking Voltage @T _j =100°C	I _R	0.5					50				mA
Typical Junction Capacitance (Note2)	C _J	450									pF
Typical Thermal Resistance (Note3)	R _{JC}	3.0									°C/w
Operating Temperature Range	T _J	-55 to+200									°C
Storage Temperature Range	T _{STG}	-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

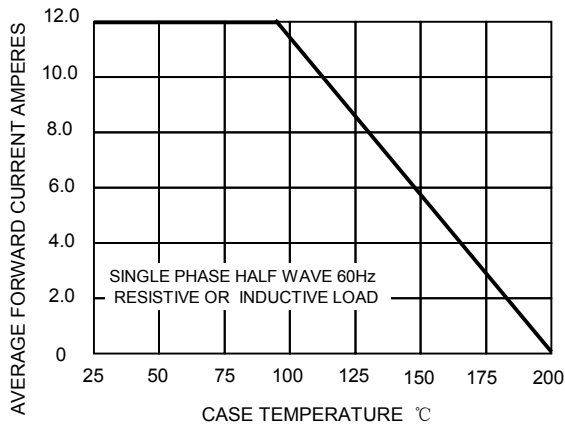


FIG.2-MAXIMUM NON-REPETITIVE SURGE

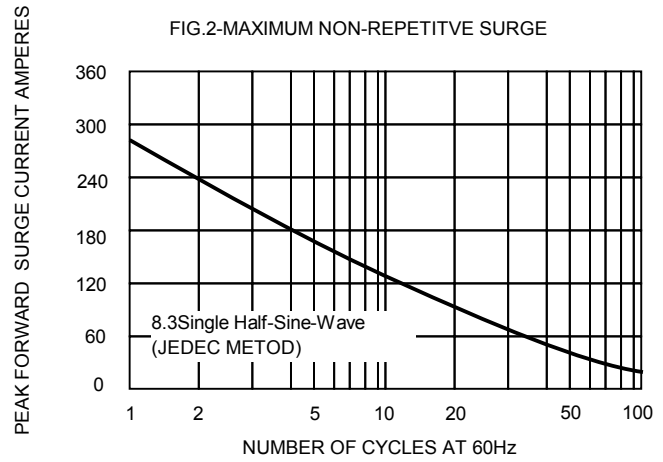


FIG.3-TYPICAL REVER CHARACTERISTICS

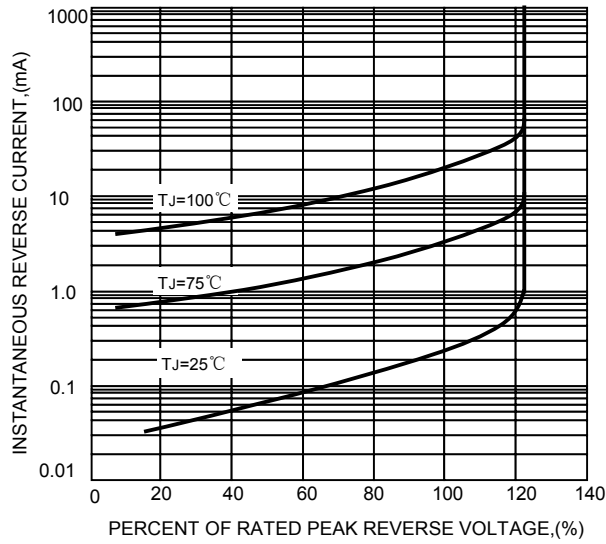


FIG.4-TYPICAL FORWARD CHARACTERISTICS

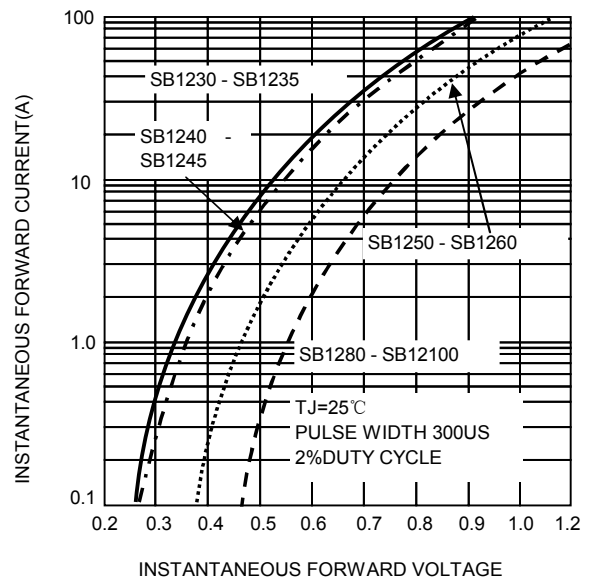


FIG.5-TYPICAL JUNCTION CAPACITANCE

