

SB220E-G thru SB2100E-G "-G" : RoHS Device

Voltage Range: 20 to 100 V

Current: 2.0 A

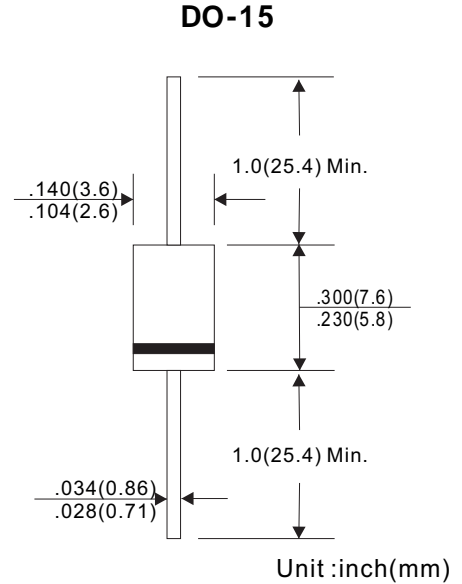


FEATURES

- Low drop down voltage
- 2.0A operation at TA=75°C with no thermal runaway
- For use in low voltage, high frequency invertors free wheeling and polarity protection
- Silicon epitaxial planar chips
- Electrostatic discharge (ESD) test under IEC61000-4-2: standard: >15KV (air) & 8KV (contact)
- Lead-free part, meet RoHS requirements

MECHANICAL DATA

- Case: Molded plastic body DO-15
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.015 ounces, 0.4 grams



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	220E	240E	245E	250E	260E	280E	2100E	Units	
Maximum Recurrent Peak Reverse Voltage	VRRM	20	40	45	50	60	80	100	Volts	
Maximum RMS Voltage	VRMS	14	28	30	35	42	56	70	Volts	
Maximum DC Blocking Voltage	VDC	20	40	45	50	60	80	100	Volts	
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at TA=75°C, See Figure 1	IAV	2.0							Amps	
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method) TL=110°C	IFSM	50							Amps	
Maximum Forward Voltage at 2.0A (Note 1)	VF	0.50		0.70		0.85		Volts		
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	0.5							mA	
TA= 25°C TA=100°C		20				10				
Typical Junction Capacitance (Note 2)	CJ	170							pF	
Typical Thermal Resistance (Note 3)	RθJA RθJL	50.0 25.0								°C/W
Operating Junction Temperature Range	TJ	-65 ~ +125					-65 ~ +150		°C	
Storage Temperature Range	TSTG	-65 ~ +150							°C	

Note 1. Pulse test: 300µS pulse width, 1% duty cycle
 2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts
 3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES SB220E-G thru SB2100E-G

Fig. 1 - Forward Current Derating Curve

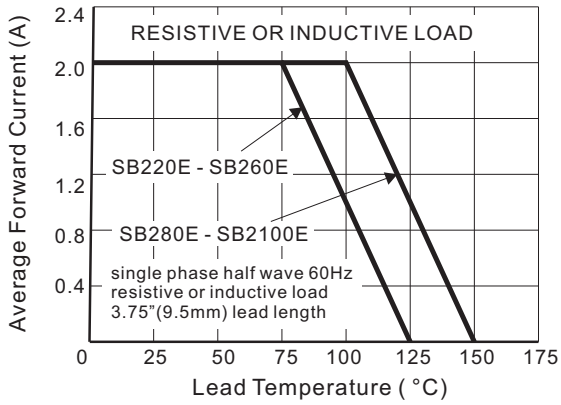


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

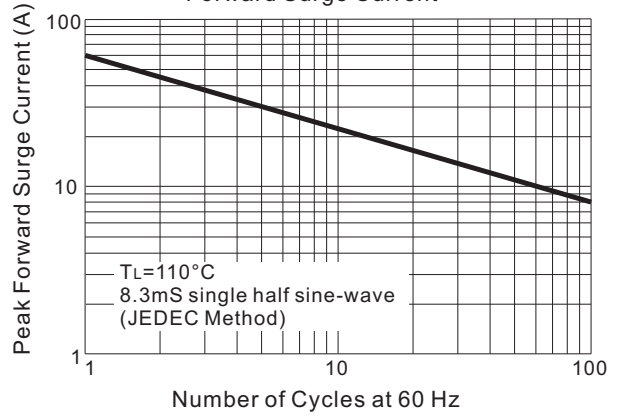


Fig. 3 - Typical Instantaneous Forward Characteristics

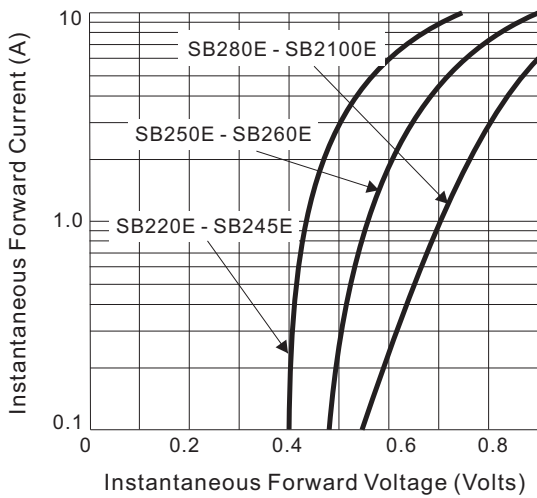


Fig. 4A - Typical Reverse Characteristics

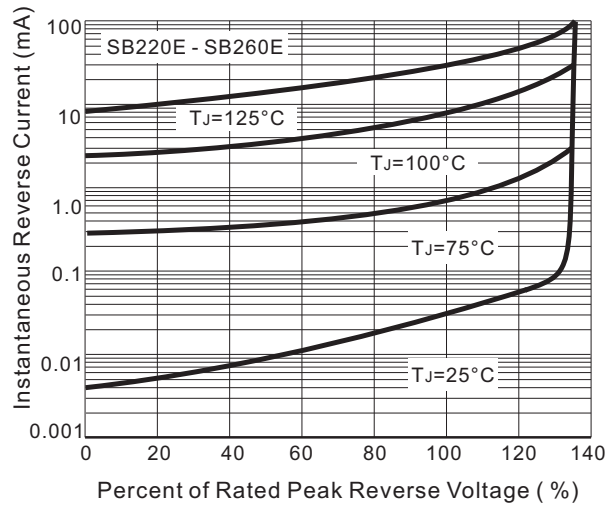


Fig. 5 - Typical Junction Capacitance

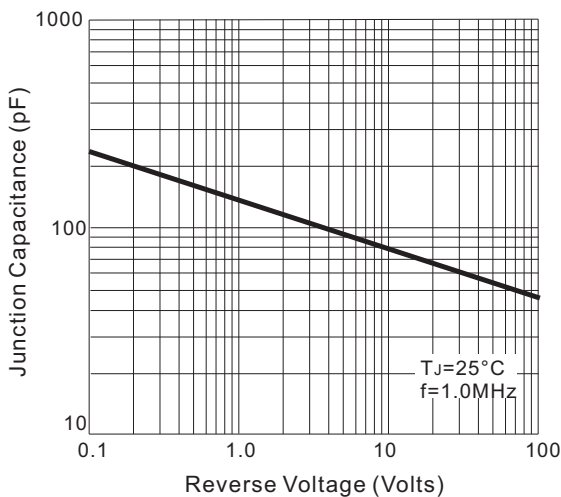


Fig. 4B - Typical Reverse Characteristic

