

SB220E-G Thru. SB2100E-G

Voltage: 20 to 100 V

Current: 2.0 A

RoHS Device

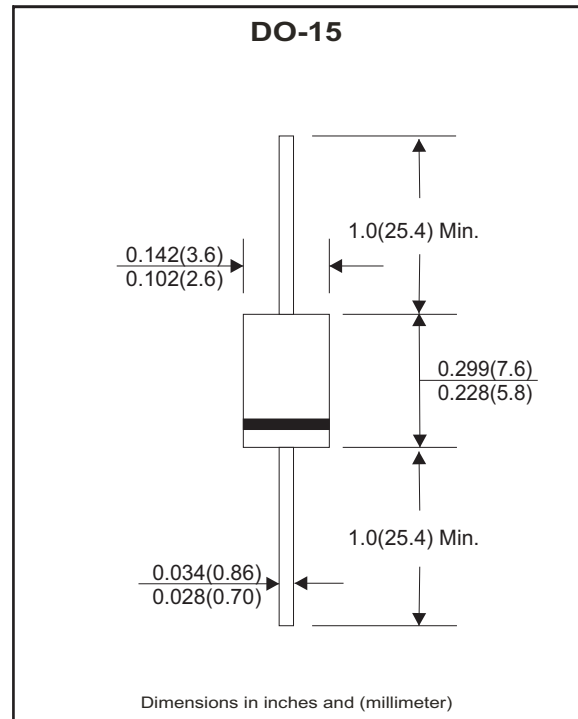


Features

- Low drop down voltage.
- For use in low voltage, high frequency invertors free wheeling and polarity protection.
- Silicon epitaxial planar chips.
- ESD test under IEC6100-4-2 : Standard: >15KV(Air) & 8KV(Contact)

Mechanical data

- Epoxy: UL94V-0 rated flame retardant
- Case: Molded plastic body DO-15
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.4grams



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	SB 220E-G	SB 240E-G	SB 245E-G	SB 250E-G	SB 260E-G	SB 280E-G	SB 2100E-G	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	20	40	45	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	28	30	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	40	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$, See Figure 1	$I_{(AV)}$	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) $T_L=110^\circ\text{C}$	I_{FSM}	50							A
Maximum forward voltage at 2.0A (Note 1)	V_F	0.50		0.70		0.85		V	
Maximum DC reverse current At rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	0.5							mA
		20			10				
Typical junction capacitance (Note 2)	C_J	170							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$				50.0				$^\circ\text{C/W}$
					25.0				
Operating junction temperature range	T_J	-65 to +125					-65 to +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150							$^\circ\text{C}$

NOTES:

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

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

RATING AND CHARACTERISTIC CURVES (SB220E-G Thru. SB2100E-G)

Fig.1 Forward Current Derating Curve

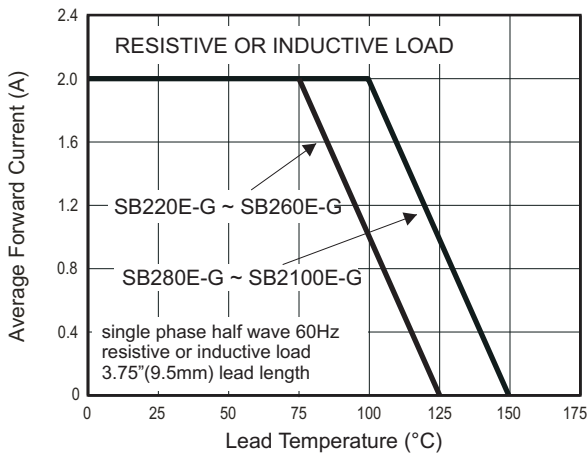


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

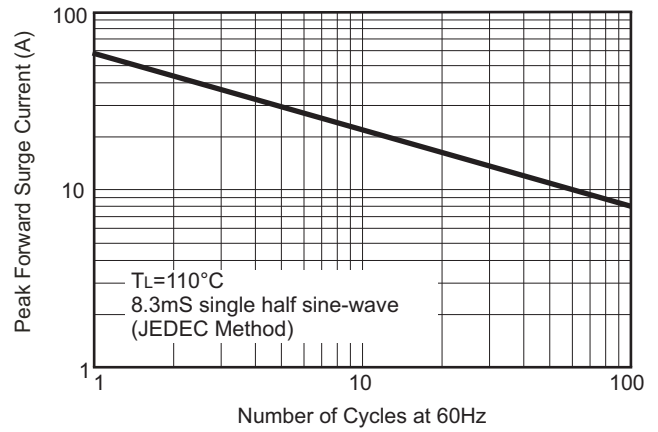


Fig.3 Typical Instantaneous Forward Characteristics

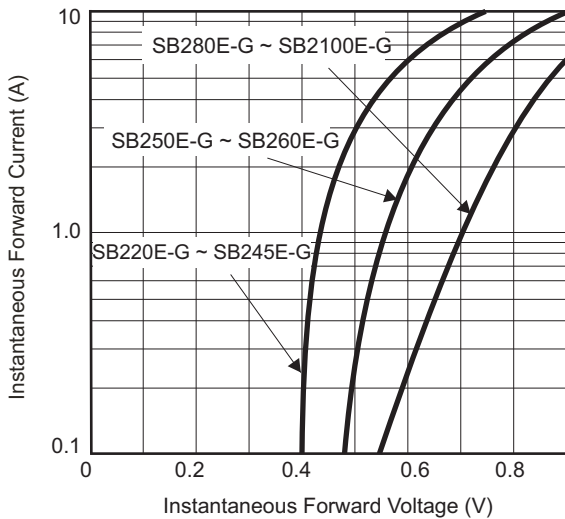


Fig.4A Typical Reverse Characteristics

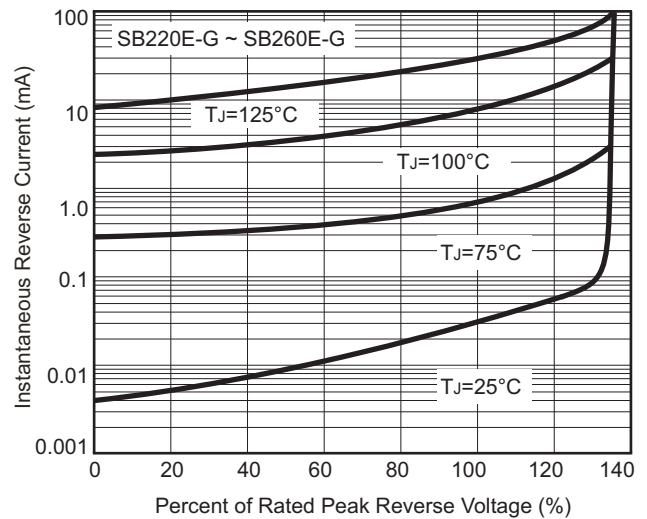


Fig.5 Typical Junction Capacitance

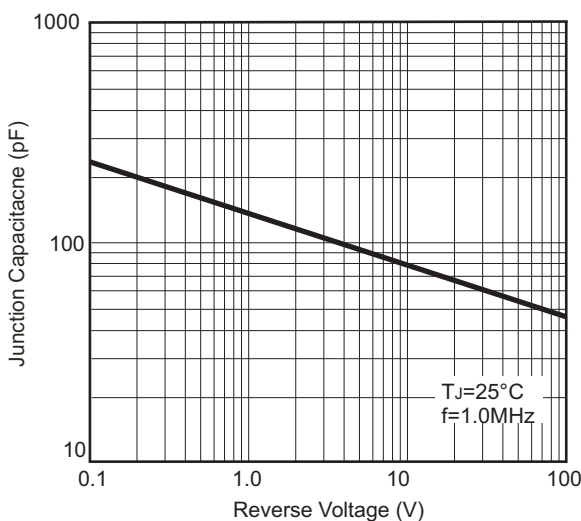


Fig.4B Typical Reverse Characteristic

