COMCHIP
SMD DIODE SPECIALIST

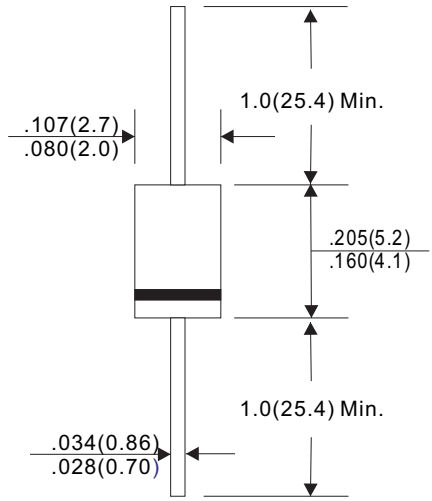
SB120E-G thru SB1100E-G "-G" : RoHS Device

Voltage Range: 20 to 100 V
Current: 1.0 A

FEATURES

- Low drop down voltage
- 1.0A 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

DO-41



Unit :inch(mm)

MECHANICAL DATA

- Case: Molded plastic body DO-41
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012 ounces, 0.34 grams

MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	*120E*	*140E*	*145E*	*150E*	*160E*	*180E*	*1100E*	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	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method) TL=110°C	IFSM	30							Amps
Maximum Forward Voltage at 1.0A (Note 1)	VF	0.50			0.70		0.85		Volts
Maximum DC Reverse Current TA= 25°C	IR	0.5							mA
at Rated DC Blocking Voltage TA=100°C		10			5				
Typical Junction Capacitance (Note 2)	CJ	110							pF
Typical Thermal Resistance (Note 3)	RθJA RθJL	80.0 30.0							°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 SB120E-G thru SB1100E-G

Fig.1 - Forward Current Derating Curve

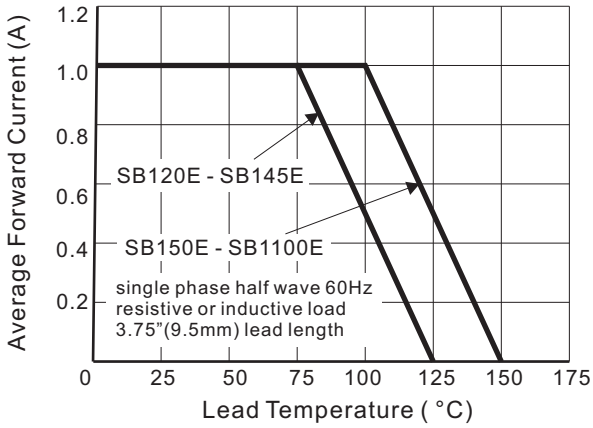


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

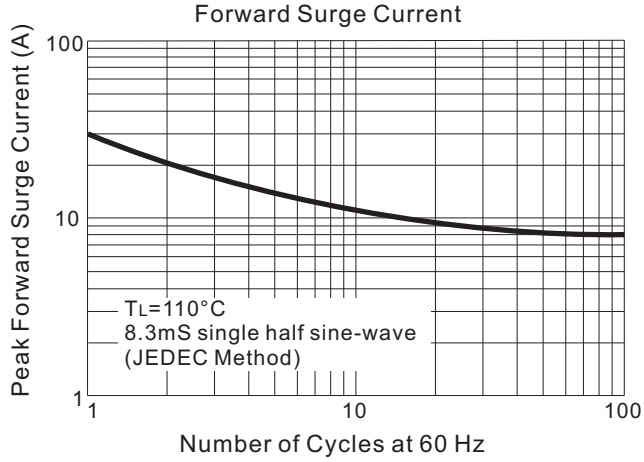


Fig. 3 - Typical Instantaneour Forward Characteristics

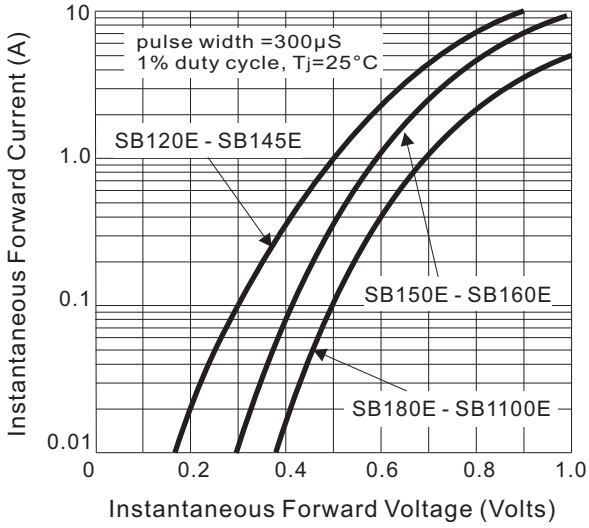


Fig. 4A - Typical Reverse Characteristics

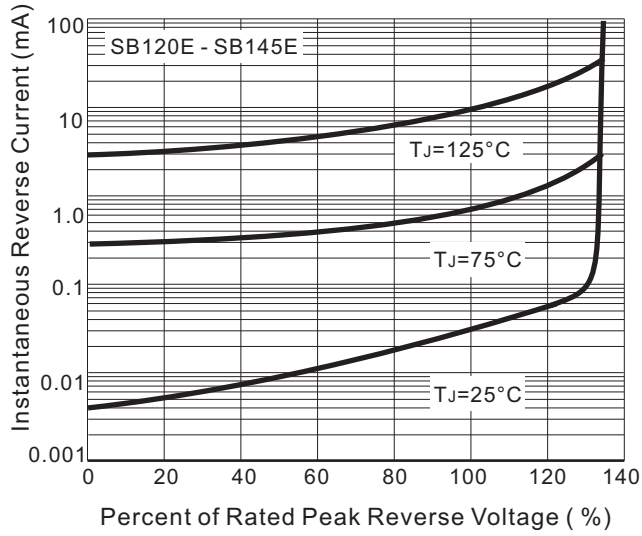


Fig. 5 - Typical Junction Capacitance

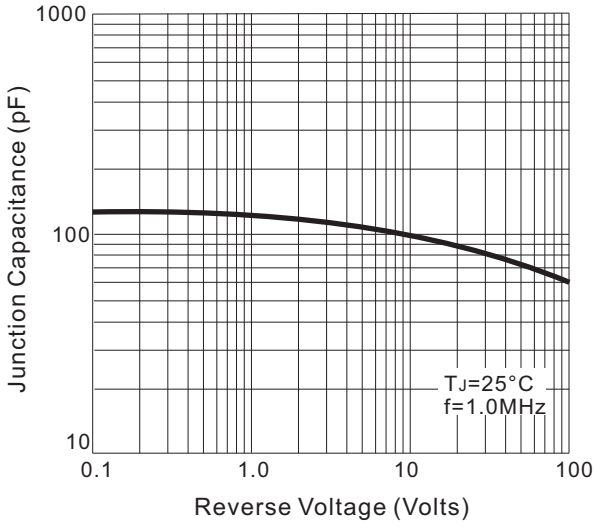


Fig. 4B - Typeical Reverse Characteristic