



DATA SHEET

SB120E~SB160E

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 60 Volts **CURRENT** 1.0 Amperes

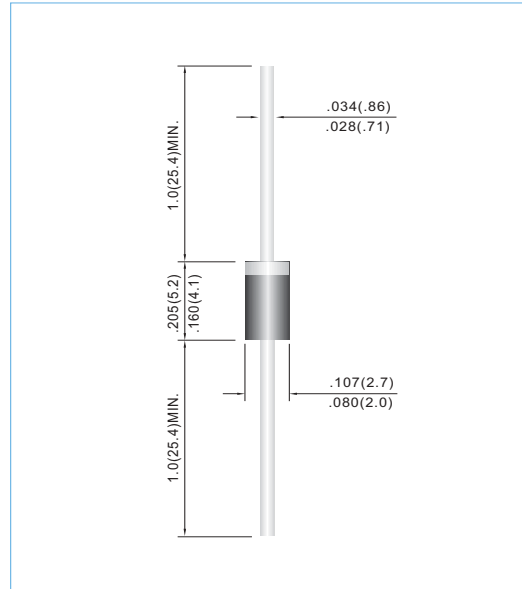
DO-41 Unit: inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request
- ESD Passed devices : Air mode 15KV, human body mode 8KV

MECHANICAL DATA

Case: DO-41 Molded plastic
 Terminals: Axial leads, solderable per MIL-STD-202G, Method 208
 Polarity: Color band denotes cathode
 Mounting Position: Any
 Weight: 0.012 ounces, 0.34grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

PARAMETER	SYMBOL	SB120E	SB130E	SB140E	SB150E	SB160E	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	V
Maximum Average Forward Rectified Current, .375" (9.5mm) lead length at $T_A = 75^\circ C$	I_{AV}	1.0					A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	30					A
Maximum Forward Voltage at 1.0A	V_F	0.50			0.70		V
Maximum DC Reverse Current $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	I_R	0.5			10		mA
Maximum Thermal Resistance	$R_{\theta JA}$	50					$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 TO +125					$^\circ C$



RATING AND CHARACTERISTIC CURVES

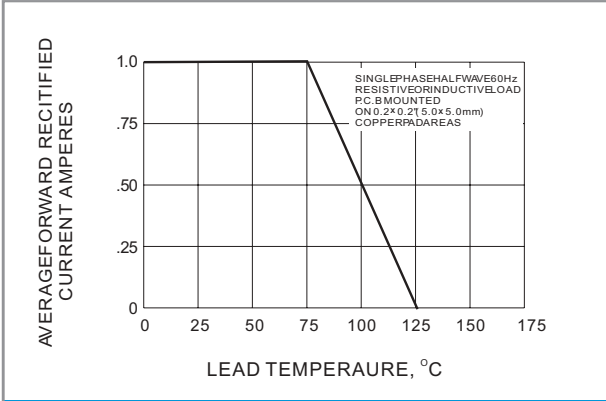


Fig.1- FORWARD CURRENT DERATING CURVE

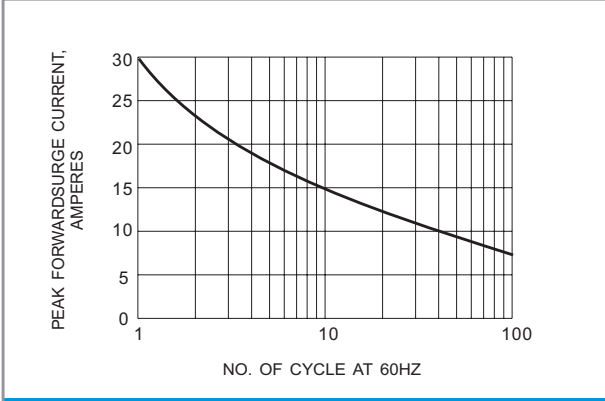


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

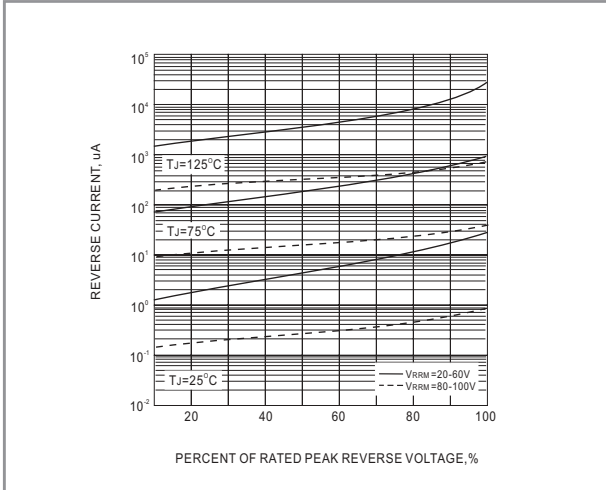


Fig.3- TYPICAL REVERSE CHARACTERISTIC

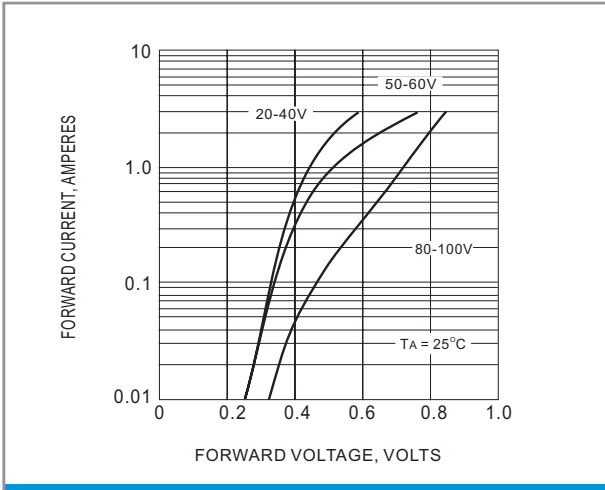


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC