



# SB120E~SB160E

## SCHOTTKY BARRIER RECTIFIERS

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

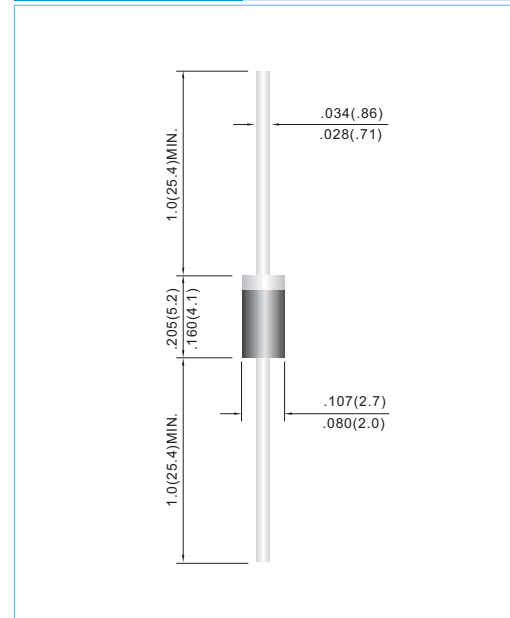
DO-41 Unit: inch(mm)

### 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 .
- In compliance with EU RoHS 2002/95/EC directives
- ESD Passed devices : Air mode 15KV ,human body mode 8KV

### MECHANICALDATA

- Case: DO-41 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.012 ounces, 0.336grams



### 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 (See Figure1)	$I_{F(AV)}$	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 $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=100^{\circ}C$	$I_R$	0.2 10			0.1 10		mA
Typical Thermal Resistance	$R_{\theta JA}$	50					$^{\circ}C / W$
Operating Junction and Storage Temperature Rang	$T_J, T_{STG}$	-55 to +125			-55 to +150		$^{\circ}C$



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## RATING AND CHARACTERISTIC CURVES

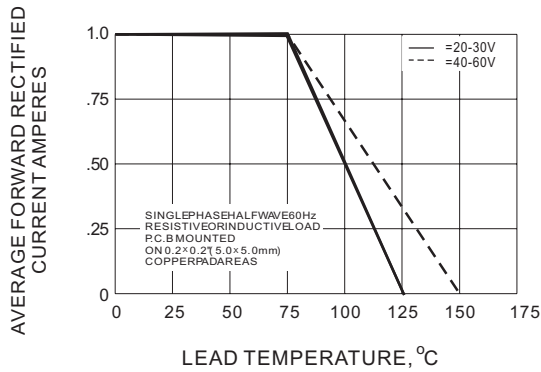


Fig. 1-FORWARD CURRENT DERATING CURVE

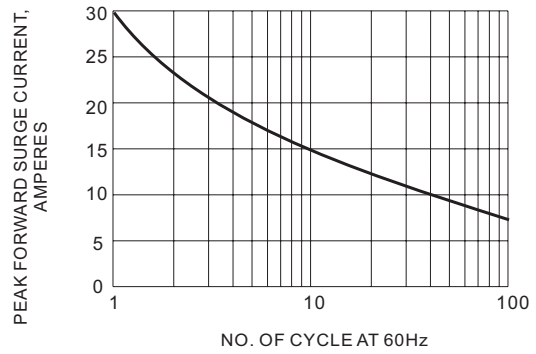


Fig. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

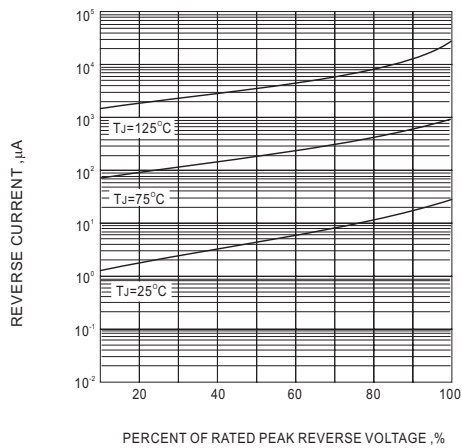


Fig. 3-TYPICAL REVERSE CHARACTERISTIC

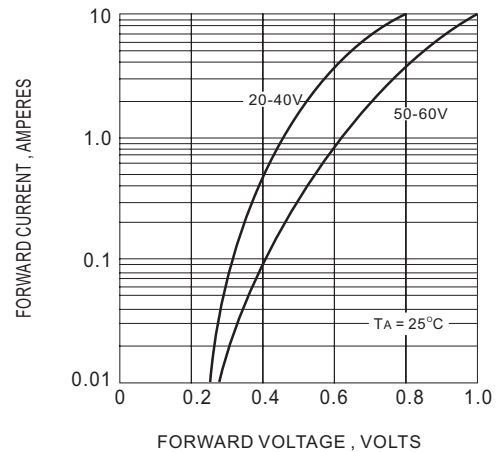


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC