



DATA SHEET

SB620~SB660

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE	20 to 60 Volts	CURRENT	6.0 Ampers	TO-220AC	Unit : inch (mm)
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FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

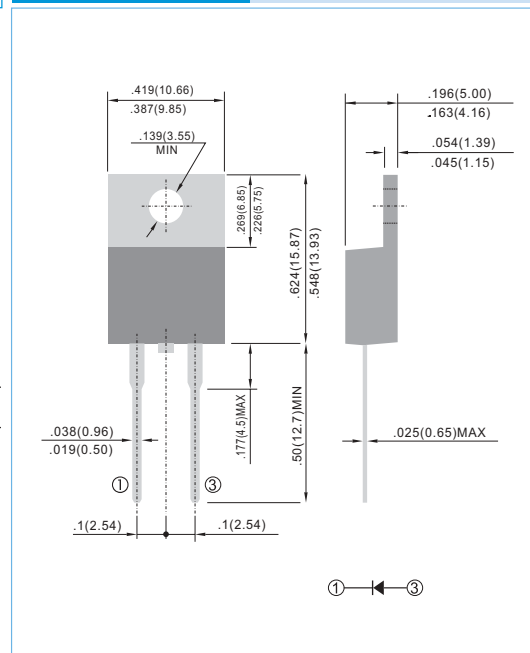
Case: TO-220AC full molded plastic package

Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 ounces, 2.24grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

For capacitive load, derate current by 20%

PARAMETER	SYMBOL	SB620	SB630	SB640	SB650	SB660	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 Current .375" (9.5mm) lead length at T _c = 75°C	I _{AV}	6.0					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	75					A
Maximum Forward Voltage at 6.0A	V _F	0.55			0.70		V
Maximum DC Reverse Current T _c = 25°C at Rated DC Blocking Voltage T _c = 100°C	I _R	0.2			15		mA
Typical Thermal Resistance	R _{θJC} R _{θJA}	6			80		°C / W
Operating Junction Temperature Range	T _J	-50 to +125					°C
Storage Temperature Range	T _J , T _{STG}	-50 to +150					°C

NOTES:

Both Bonding and Chip structure are available.



RATING AND CHARACTERISTIC CURVES

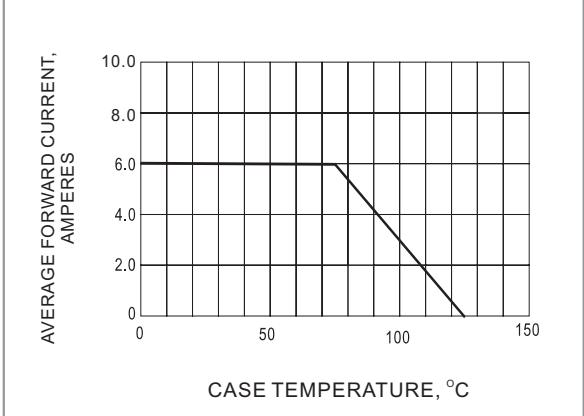


Fig. 1- FORWARD CURRENT DERATING CURVE

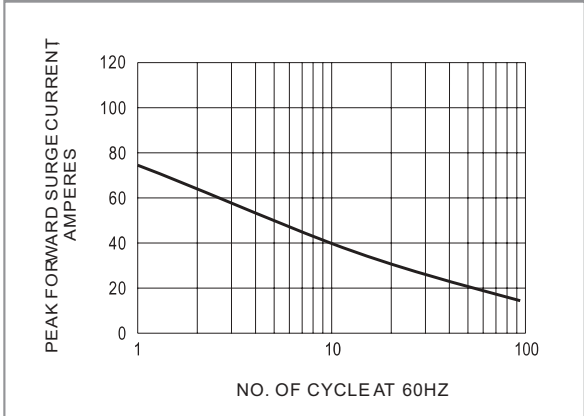


Fig. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

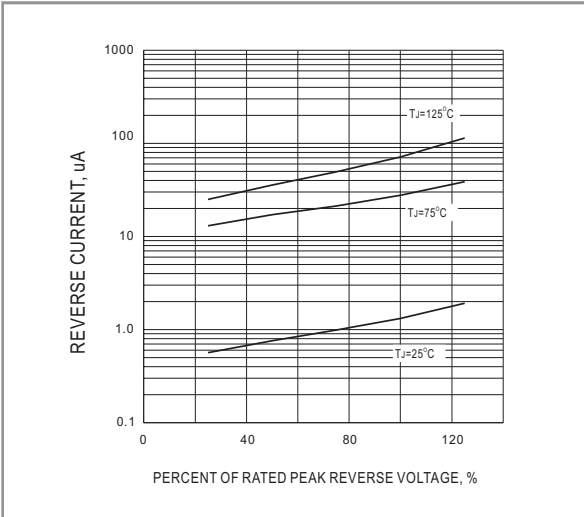


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

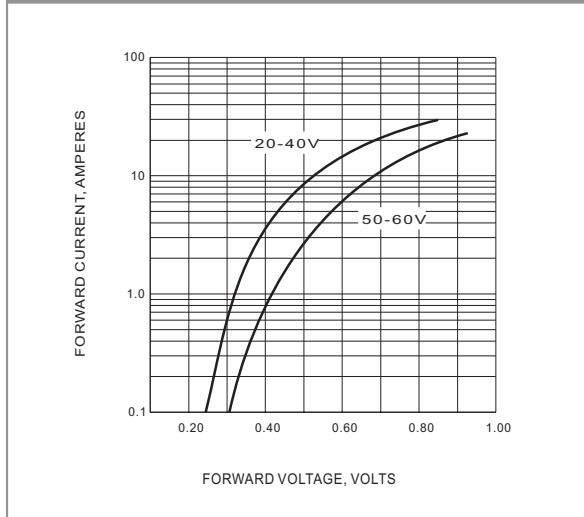


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC