



DATA SHEET

SB4020PT~SB4060PT

ISOLATION SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 60 Volts **CURRENT** 40 Amperes

TO-3P

Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. 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: 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

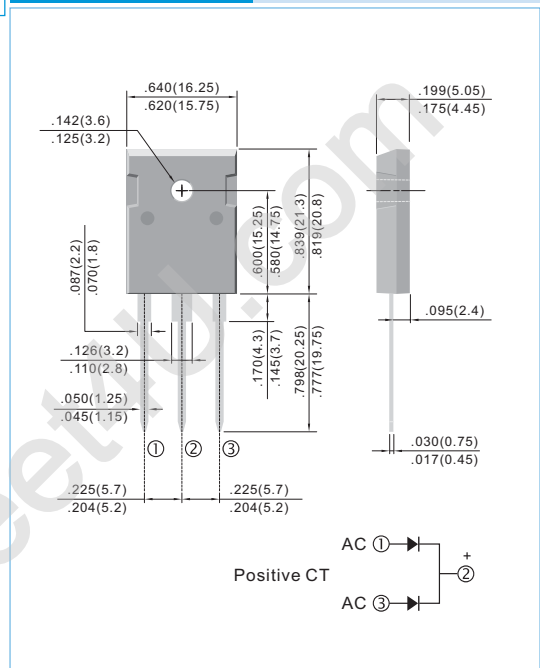
Case: TO-3P Molded plastic

Terminals: Solder plated, solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Standard packaging: Any

Weight: 0.2 ounces, 5.6grams.



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	SB40 20PT	SB40 30PT	SB40 35PT	SB40 40PT	SB40 45PT	SB40 50PT	SB40 60PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	24.5	28	31.5	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_c=100$	I_{AV}	40							A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	350							A
Maximum Forward Voltage at 20A	V_F	0.55					0.70		V
Maximum DC Reverse Current $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R					1.0 100			mA
Maximum Thermal Resistance	$R_{\theta JC}$	1.5							/ W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 50 to + 150							

Note.

Both Bonding and Chip structure are available.



RATING AND CHARACTERISTIC CURVES

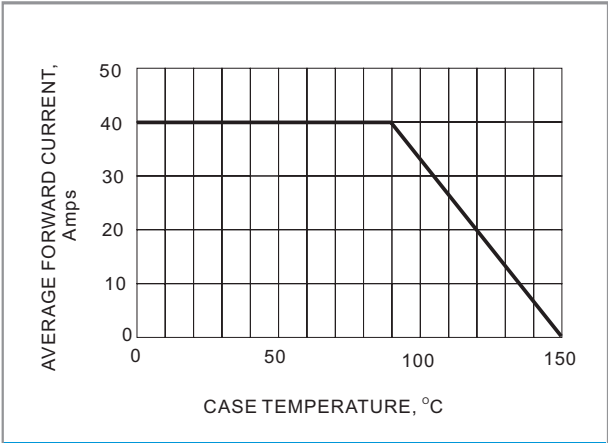


Fig.1- FORWARD CURRENT DERATING CURVE

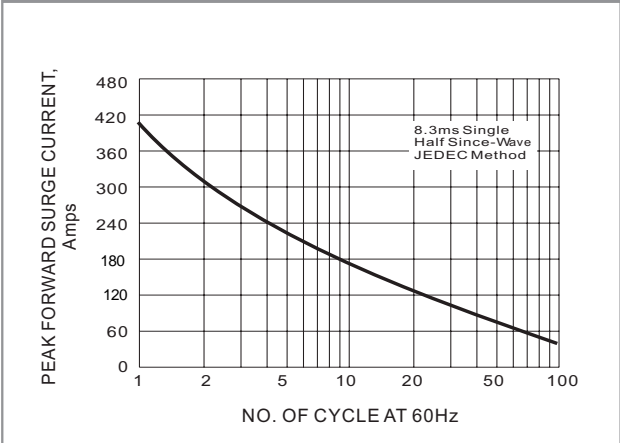


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

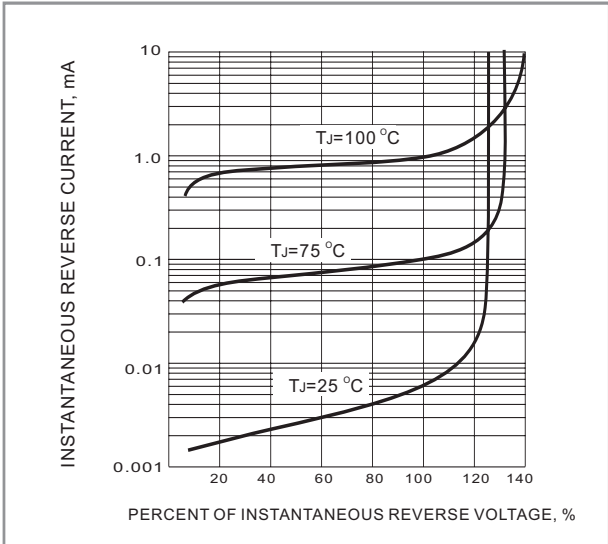


Fig.3- TYPICAL REVERSE CHARACTERISTICS

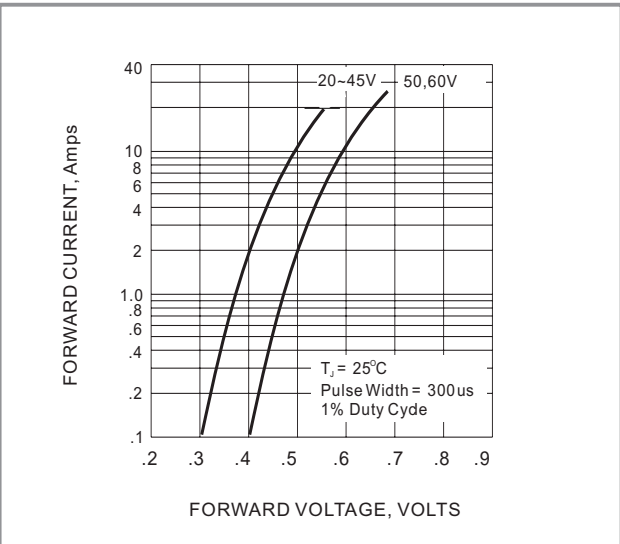


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS