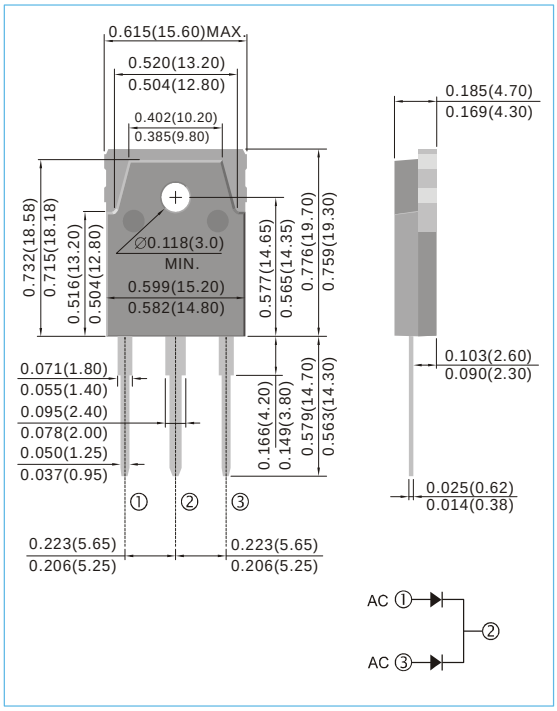
SB4020ST SERIES

SCHOTTKY BARRIER RECTIFIERS

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

TO-247S / TO-3PS 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 polarlity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: TO-247S/TO-3PS Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.1932 ounces, 5.4803 grams.

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	SB4020ST	SB4030ST	SB4040ST	SB4045ST	SB4050ST	SB4060ST	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	V
Maximum RMS Voltage	V_{RMS}	14	21	28	31.5	35	42	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	40	50	60	V
Maximum Average Forward Current at T c =90 °C	$I_{F(AV)}$	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 per leg	V_F	0.55				0.70		V
Maximum DC Reverse Current at T_J=25 °C Rated DC Blocking Voltage T_J=100 °C	I_R	0.2 50						mA
Typical Thermal Resistance	$R_{\theta JC}$	1.5						°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +125		-55 to +150				°C

NOTE:

Both Bonding and Chip structure are available.

SB4020ST SERIES

RATING AND CHARACTERISTIC CURVES

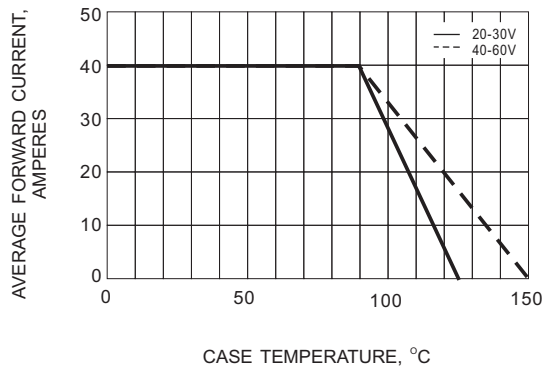


Fig.1- FORWARD CURRENT DERATING CURVE

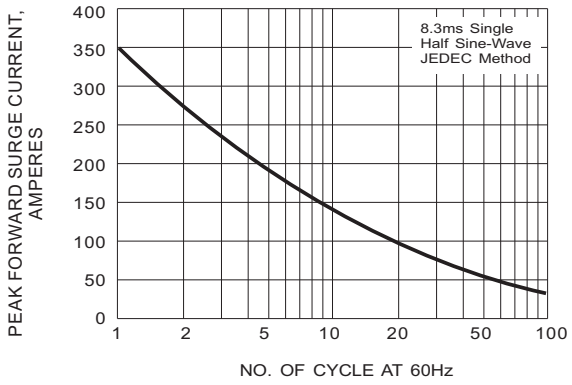


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

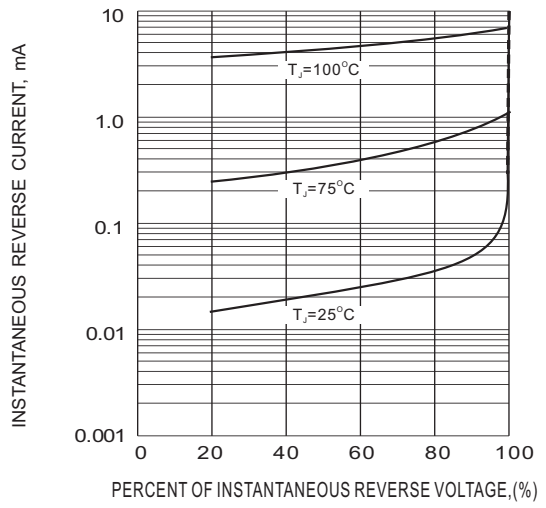


Fig.3- TYPICAL REVERSE CHARACTERISTIC

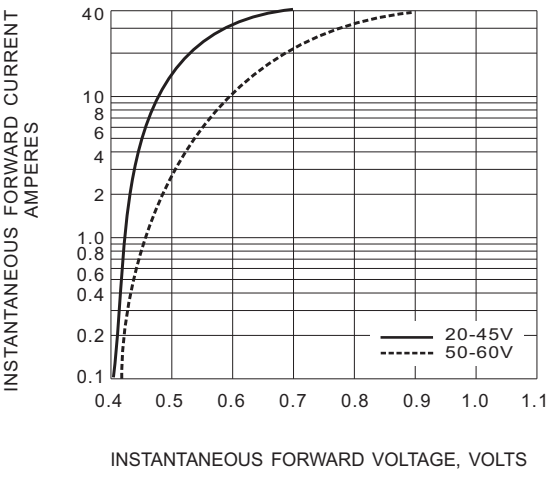


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC