



SB4020PT SERIES

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 60 Volt **CURRENT** 40 Ampere

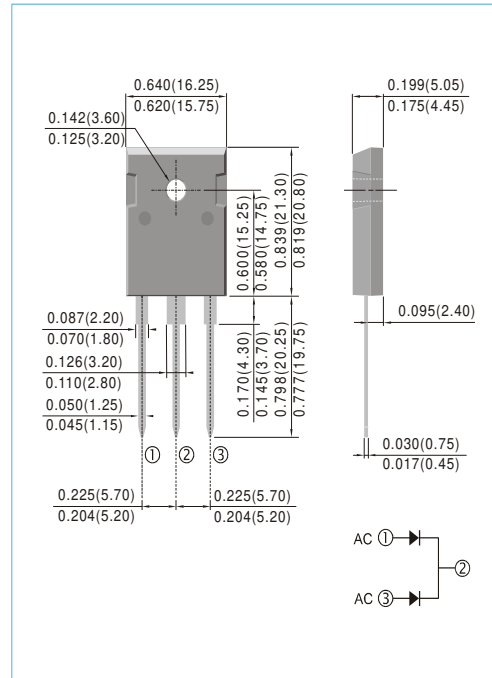
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- 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.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: TO-247AD/TO-3P Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.2245 ounces, 6.3673 grams.

TO-247AD / TO-3P Unit : inch(mm)



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	SB4020PT	SB4030PT	SB4040PT	SB4045PT	SB4050PT	SB4060PT	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 $T_c = 90^\circ C$	$I_{F(AV)}$	40						A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350						A
Maximum Forward Voltage at 20A per leg	V_F	0.55				0.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_j=25^\circ C$ $T_j=100^\circ C$	I_R	0.2				50		mA
Typical Thermal Resistance	$R_{\theta JC}$	1.5						$^\circ C / W$
Operating Junction and Storage Temperature Range	T_j, T_{STG}	-55 to +125			-55 to +150			$^\circ C$

NOTE :
Both Bonding and Chip structure are available.



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RATING AND CHARACTERISTIC CURVES

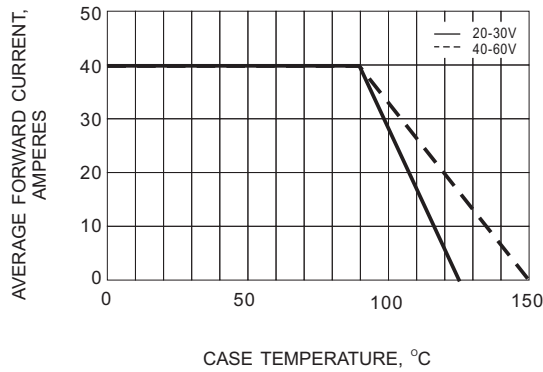


Fig.1 FORWARD CURRENT DERATING CURVE

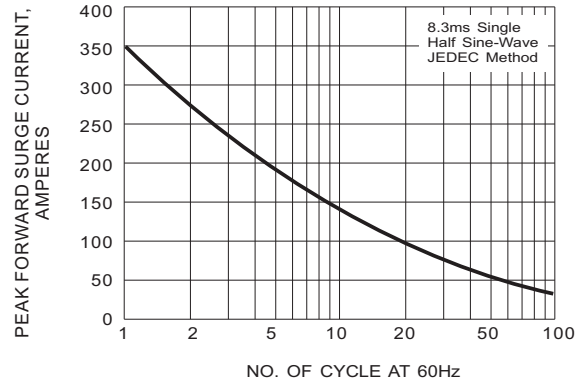


Fig.2 MAXIMUM NON - REPETITIVE SURGE CURRENT

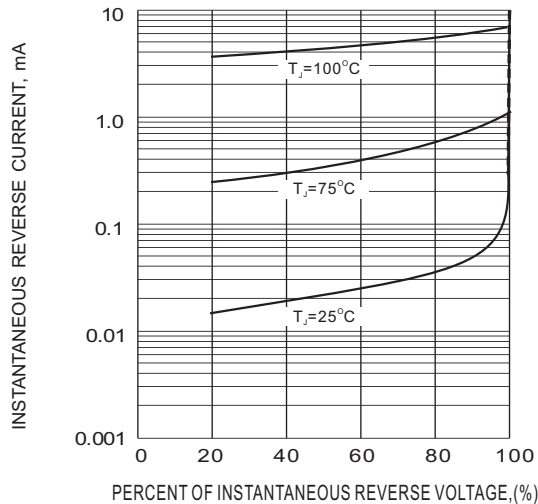


Fig.3 TYPICAL REVERSE CHARACTERISTIC

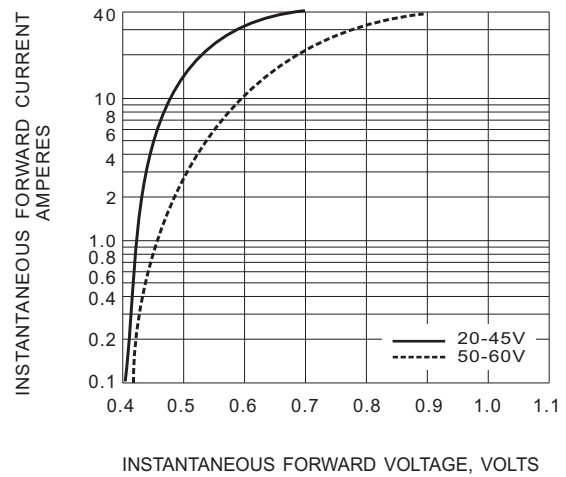


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

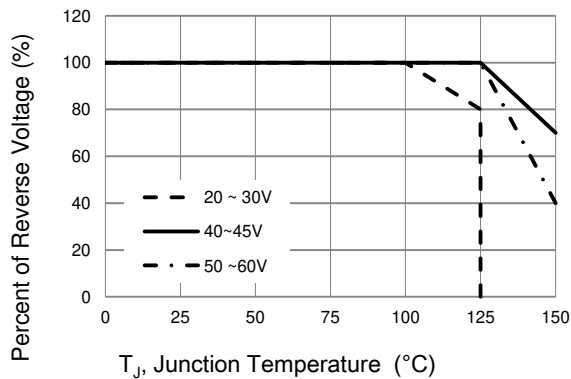


Fig.5 Operating Temperature Derating Curve



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Part No_packing code_Version

SB4020PT_T0_00001

SB4020PT_T0_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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