



#### 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 polarlity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive



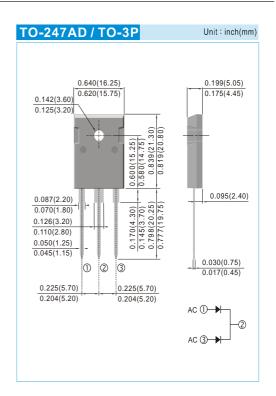
• Case: TO-247AD/TO-3P Molded plastic

• Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

· Polarity: As marked.

· Standard packaging: Any

• Weight: 0.2245 ounces, 6.3673 grams.



#### 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 <sub>RRM</sub>	20	30	40	45	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	31.5	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	40	50	60	V
Maximum Average Forward Current at T c =90 °C	I <sub>F(AV)</sub>	40						
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	350						
Maximum Forward Voltage at 20A per leg	V <sub>F</sub>	0.55 0.70					V	
Maximum DC Reverse Current at $T_J=25$ °C Rated DC Blocking Voltage $T_J=100$ °C	I <sub>R</sub>	0.2 50						mA
Typical Thermal Resistance	R <sub>eJC</sub>	1.5						°C /
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +125 -55 to +150					°C	

NOTE:

Both Bonding and Chip structure are available.





#### **RATING AND CHARACTERISTIC CURVES**

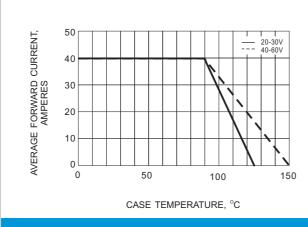


Fig.1 FORWARD CURRENT DERATING CURVE

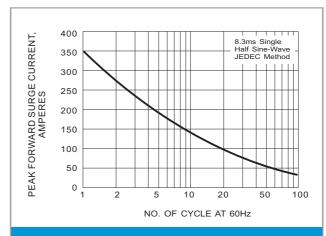


Fig.2 MAXIMUM NON - REPETITIVE SURGE CURRENT

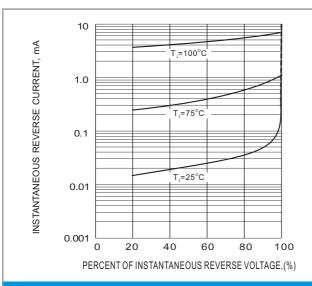


Fig.3 TYPICAL REVERSE CHARACTERISTIC

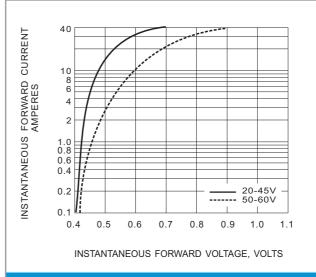


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

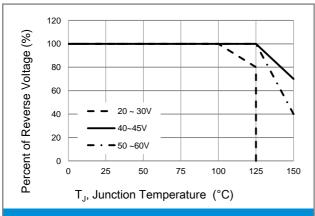


Fig.5 Operating Temperature Derating Curve





### Part No\_packing code\_Version

SB4020PT\_T0\_00001 SB4020PT\_T0\_10001

### For example:



Packing Code XX					Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code			
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	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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