



#### SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 60 Volt CURRENT

30 Ampere

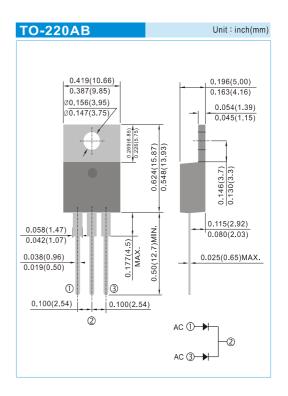
#### Recongnized File #E228882

#### **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
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- Case: TO-220AB Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- · Standard packaging: Any
- Weight: 0.067 ounces, 1.89 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	SB3020CT	SB3030CT	SB3040CT	SB3045CT	SB3050CT	SB3060CT	UNITS
Maximum Recurrent Peak Reverse Voltage		20	30	40	45	50	60	V
Maximum RMS Voltage		14	21	28	31.5	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	45	50	60	V
Maximum Average Forward Current at Tc =75°C	I <sub>F(AV)</sub>	30						А
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275						А
Maximum Forward Voltage at 15A per leg	V <sub>F</sub>	0.55 0.75				V		
Maximum DC Reverse Current at $T_J=25^{\circ}\text{C}$ Rated DC Blocking Voltage $T_J=100^{\circ}\text{C}$	I <sub>R</sub>	0.2 50						mA
Typical Thermal Resistance	R <sub>eJC</sub>	1.5					°C / W	
Operating Junction Temperature Range	T	-55 to +125 -55 to +150			°C			
Storage Temperature Range	T <sub>STG</sub>	-55 to +150				°C		





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

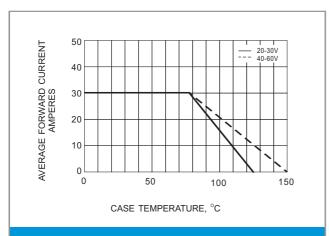


Fig.1 FORWARD CURRENT DERATING CURVE

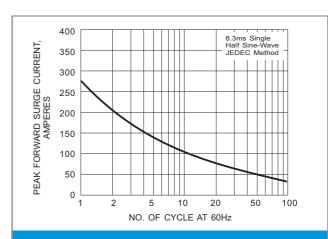


Fig.2 MAXIMUM NON - REPETITIVE SURGE CURRENT

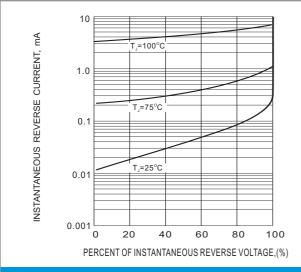


Fig.3 TYPICAL REVERSE CHARACTERISTIC

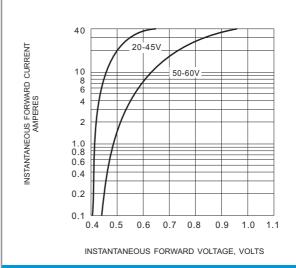


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

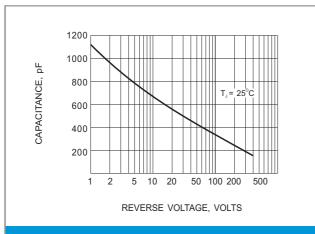


Fig.5 TYPICAL JUNCTION CAPACITANCE

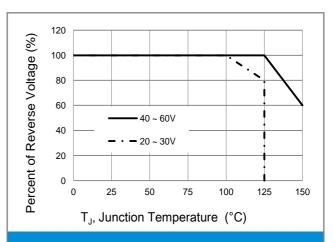


Fig.\* Operating Temperature Derating Curve





### Part No\_packing code\_Version

SB3020CT\_T0\_00001

### 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)	A	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	Х						
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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