



# DATA SHEET

## SB1020F~SB10150F

### ISOLATION SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 150 Volts **CURRENT** 10 Amperes

ITO-220AC

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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

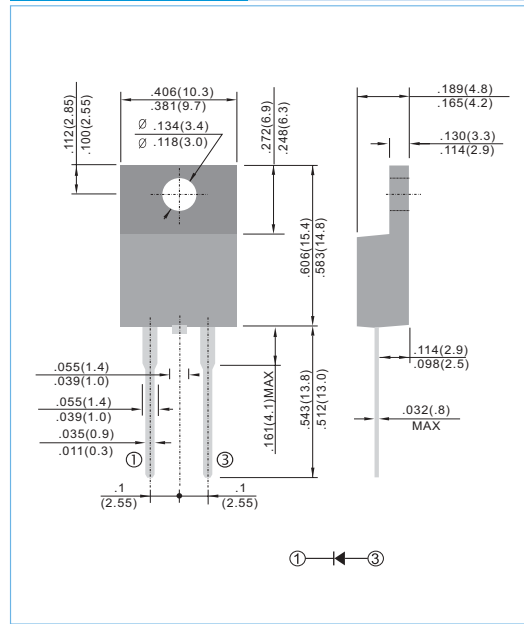
Case: ITO-220AC Molded plastic

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

Polarity: As marked.

Standard packaging: Any

Weight: 0.08 ounces, 2.24grams.



#### 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%

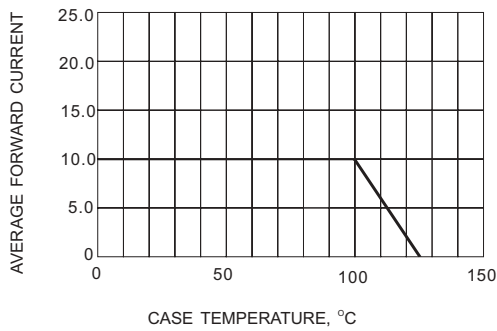
PARAMETER	SYMBOL	SB10 20F	SB10 30F	SB10 40F	SB10 45F	SB10 50F	SB10 60F	SB10 80F	SB10 100F	SB10 150F	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	45	50	60	80	100	150	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	31.5	35	42	56	70	105	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	45	50	60	80	100	150	V	
Maximum Average Forward Current .375" (9.5mm) lead length at $T_c = 100$	$I_{AV}$	10									A	
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150									A	
Maximum Forward Voltage at 10A	$V_F$	0.55			0.75		0.85		0.92		V	
Maximum DC Reverse Current $T_A = 25$ at Rated DC Blocking Voltage $T_A = 100$	$I_R$	0.5					50					mA
Typical Thermal Resistance	$R_{QA}$	60									/W	
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	- 50 to + 125										

Note.

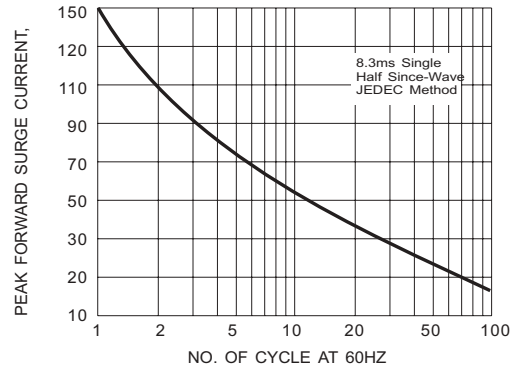
Both Bonding and Chip structure are available.



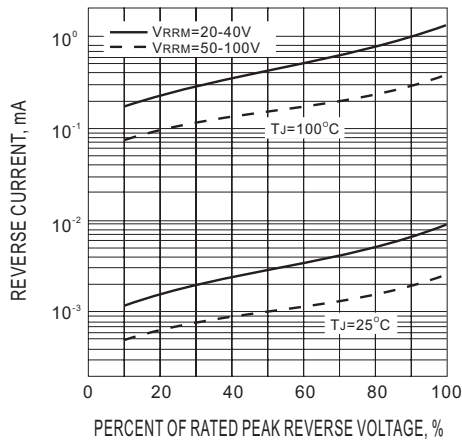
**RATING AND CHARACTERISTIC CURVES**



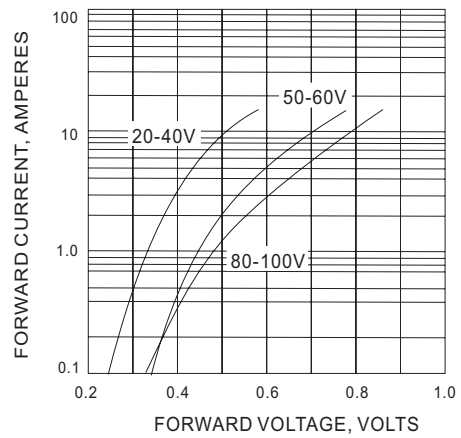
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**