

Features

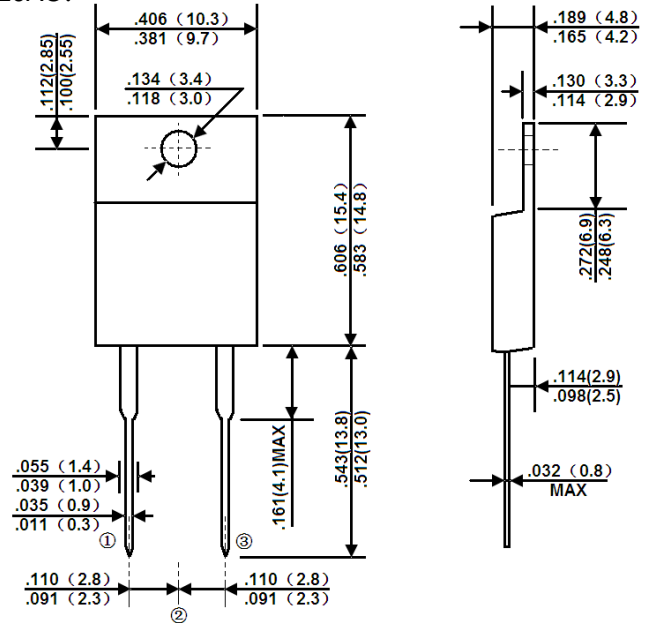
- * Low power loss, high efficiency
- * Guard-ring for overvoltage protection
- * High surge current capability
- * Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT

Package Outline Dimensions in inches (millimeters)

ITO-220AC:



Mechanical Data

- * Case: ITO-220AC
- * Molding compound, UL flammability classification rating 94V-0
- * Terminal: Matte tin plated leads, solderable per JESD 22-B102 Meet JESD 201 class 1A whisker test
- * Polarity: As marked
- * Mounting torque: 5 in-lbs maximum

Maximum Ratings and Electrical Characteristics

Rating 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%.

Type Number	Symbol	SB 1020 F	SB 1030 F	SB 1040 F	SB 1050 F	SB 1060 F	SB 1090 F	SB 10100 F	SB 10150 F	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	63	70	105	V
Maximum D.C Blocking Voltage	V_{DC}	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10								A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	200								A
Maximum instantaneous forward voltage (Note 1) $I_F=10A$	V_F	0.55			0.70		0.85		0.95	V
Maximum reverse current @ Rated VR $T_J=25\text{ }^\circ\text{C}$ $T_J=100\text{ }^\circ\text{C}$ $T_J=125\text{ }^\circ\text{C}$	I_R	0.5						0.1		mA
		15			10		-			
		-						5		
Voltage rate of change (Rated VR)	dV/dt	10000								V/ μ s
Typical Thermal Resistance	$R_{\theta JC}$	4								$^\circ\text{C}/W$
Operating junction temperature range	T_J	-55 to +125				-55 to +150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

Note:1、 Pulse test with PW=300 μ s, 1% duty cycle

Ratings and Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

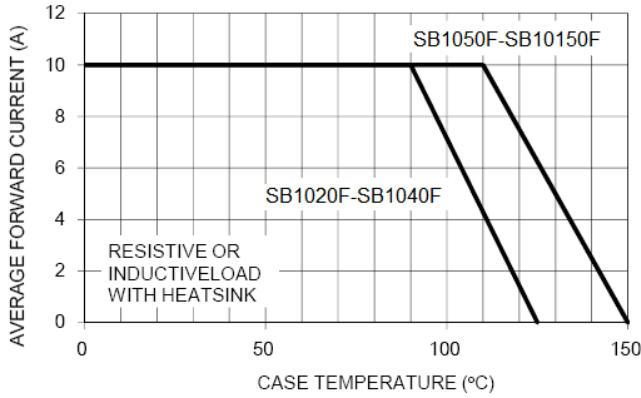


FIG. 2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

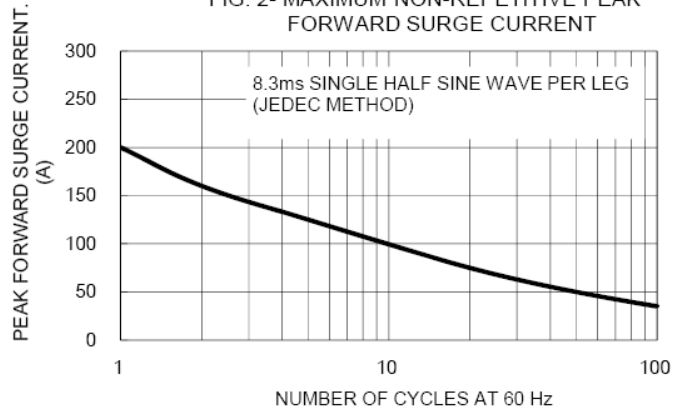


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

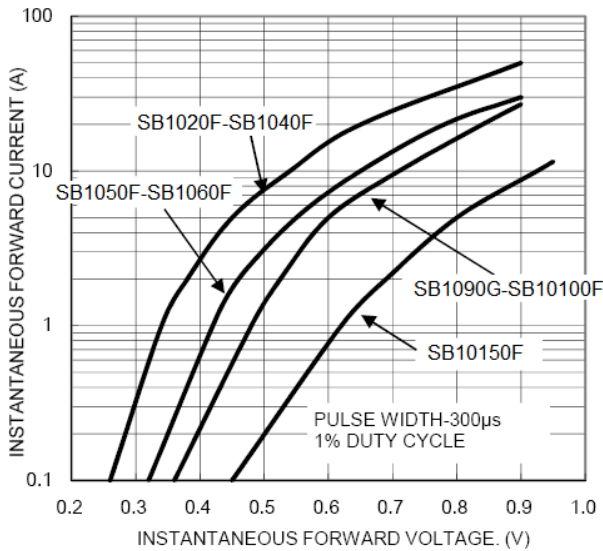


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

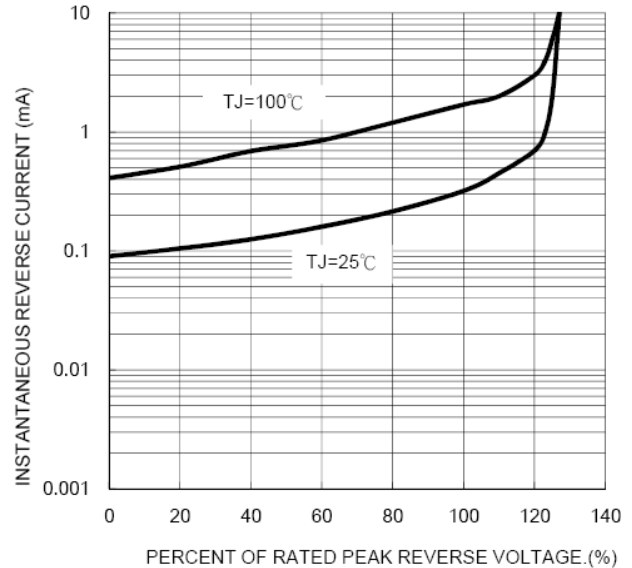


FIG. 5- TYPICAL JUNCTION CAPACITANCE

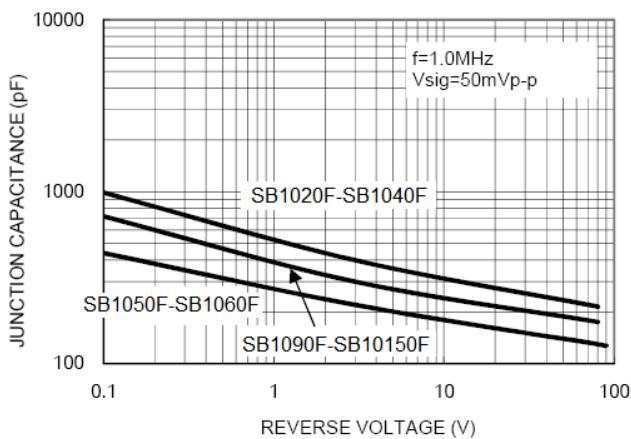
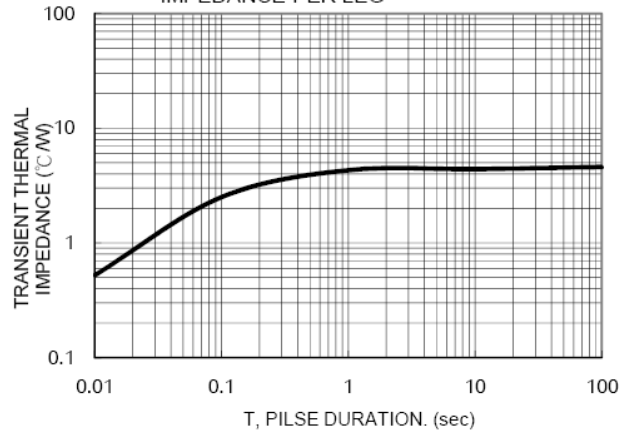


FIG. 6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG





SB1020F THRU SB10150F
Isolated Schottky Barrier Rectifiers

Ordering Information

Part No.	Package	Packing
SB1020F~SB10150F	ITO-220AC	50pcs/Tube