

### Features

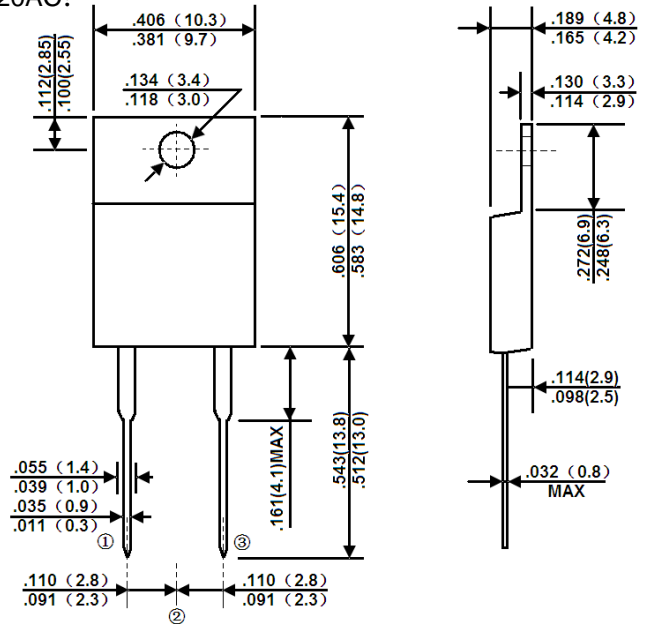
- \* Low power loss, high efficiency
- \* Guard-ring for overvoltage protection
- \* High surge current capability
- \* Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



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 1620 F	SB 1630 F	SB 1640 F	SB 1650 F	SB 1660 F	SB 1690 F	SB 16100 F	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	V
Maximum D.C Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	16							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	275							A
Maximum instantaneous forward voltage (Note 1) $I_F=16A$	$V_F$	0.55			0.70		0.92		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		-		
		-							
Voltage rate of change (Rated VR)	$dV/dt$	10000							V/ $\mu$ 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 $\mu$ s, 1% duty cycle

### Ratings and Characteristic Curves

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

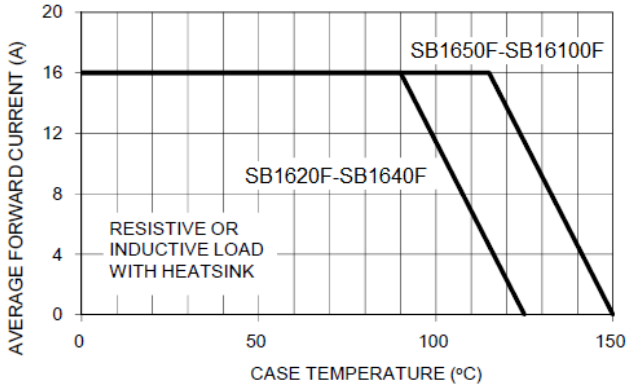


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

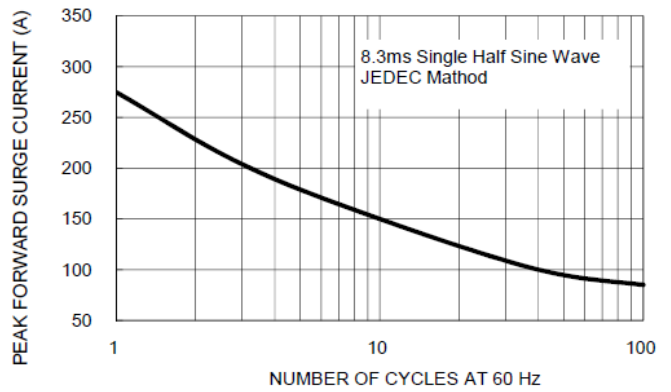


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

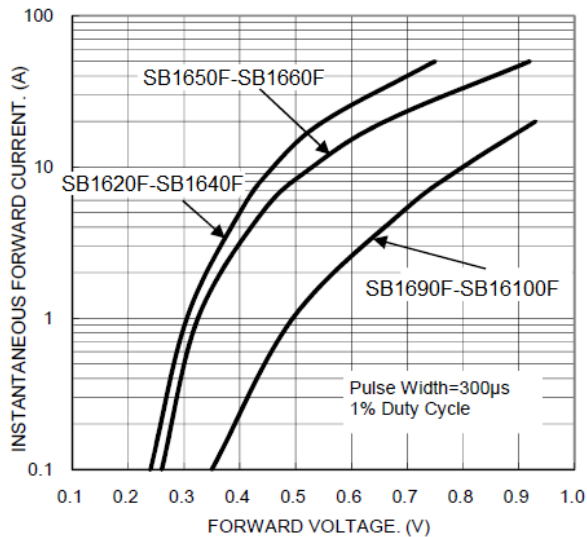


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

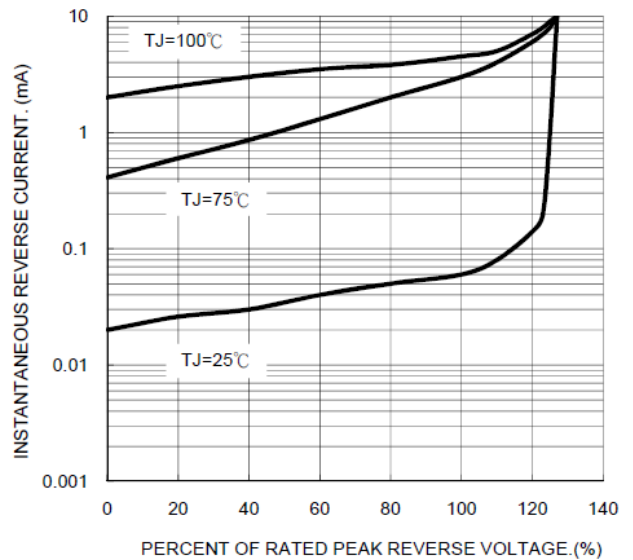


FIG. 5- TYPICAL JUNCTION CAPACITANCE

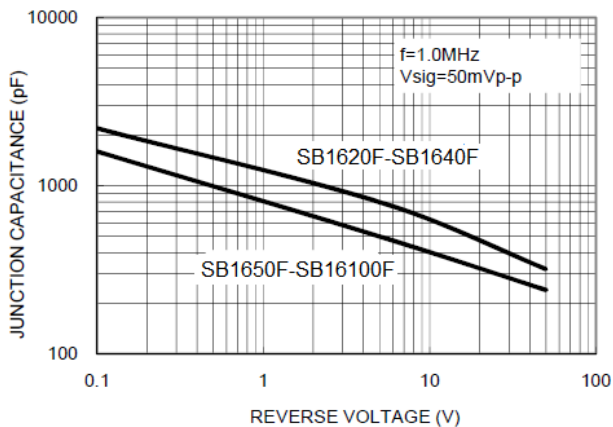
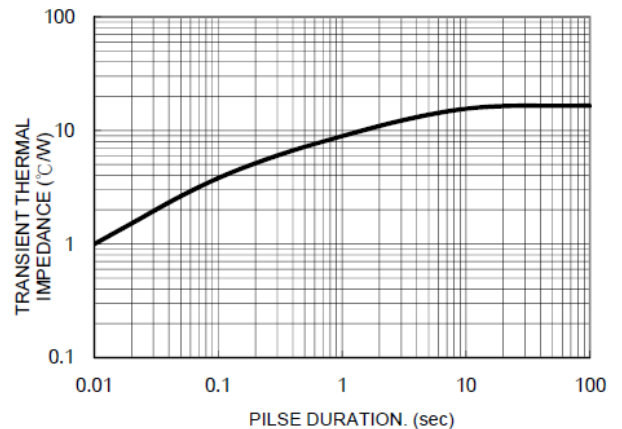


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS





**SB1620F THRU SB16100F**  
*Isolated Schottky Barrier Rectifiers*

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**Ordering Information**

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<b>Part No.</b>	<b>Package</b>	<b>Packing</b>
SB1620F~SB16100F	ITO-220AC	50pcs/Tube