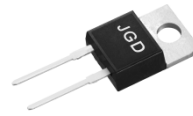


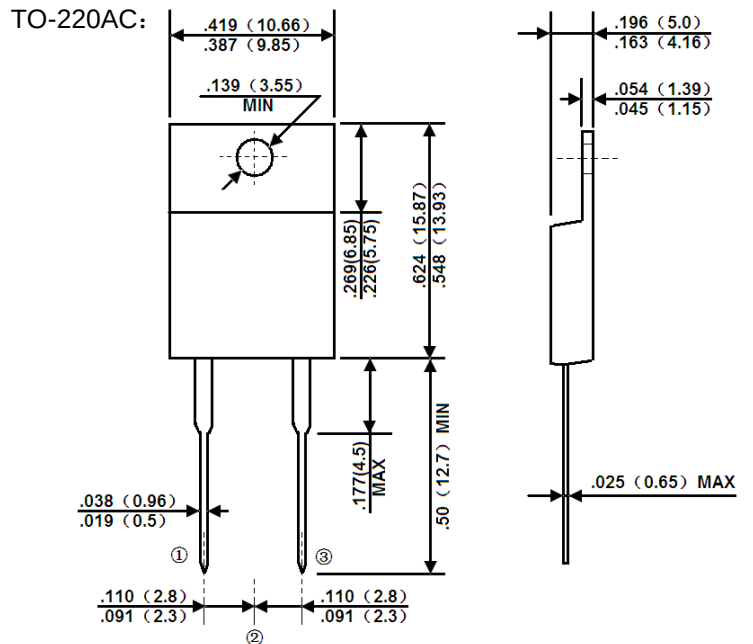
Features

- * 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)



Mechanical Data

- * Case: TO-220AC
- * Molding compound, UL flammability classification rating 94V-0
- * Terminal: Matte tin plated leads, solderable per JESD22-B102Meet 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 2020	SB 2030	SB 2040	SB 2050	SB 2060	SB 2090	SB 20100	SB 20150	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)}	20								A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	300								A
Maximum instantaneous forward voltage (Note 1) IF=20 A	V _F	0.55			0.70		0.92		1.02	V
Maximum reverse current @ rated VR T _J =25 °C T _J =100 °C T _J =125 °C	I _R	0.5				0.1				mA
		15		10		-				
		-				5				
Typical Thermal Resistance	R _{ΘJC}	1.5								°C/W
Operating junction temperature range	T _J	-55 to +125			-55 to +150					°C
Operating junction temperature range - In DC forward mode	T _J	≤200								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

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

Ratings and Characteristic Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

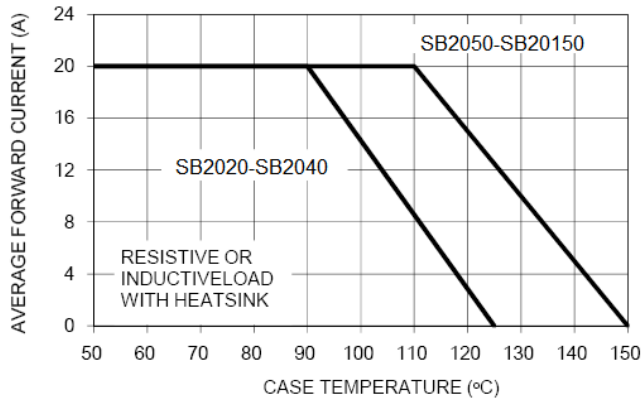


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

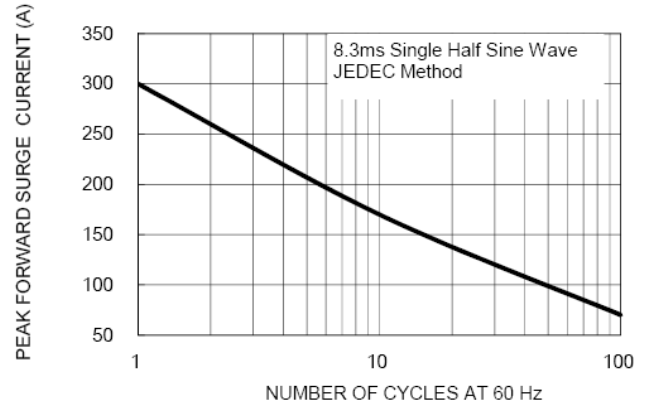


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

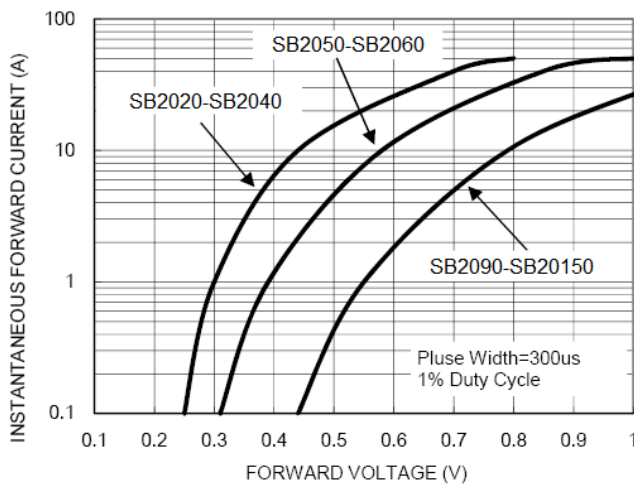


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

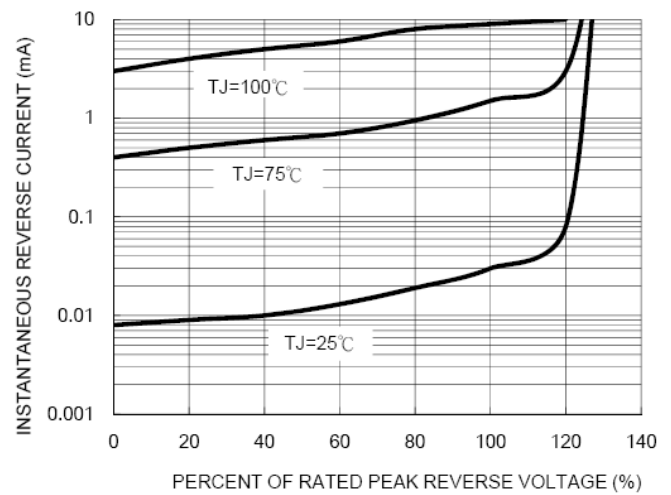


FIG. 5 TYPICAL JUNCTION CAPACITANCE

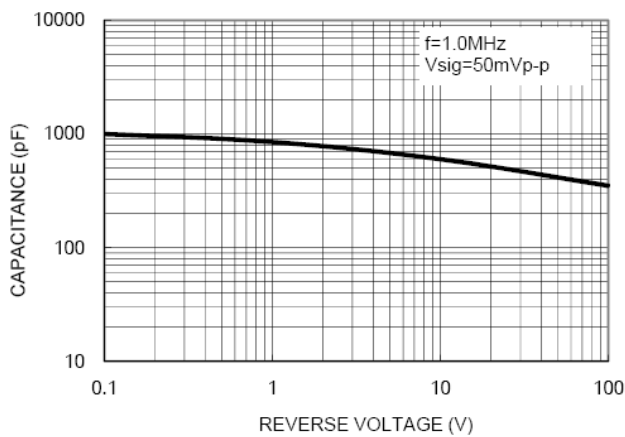
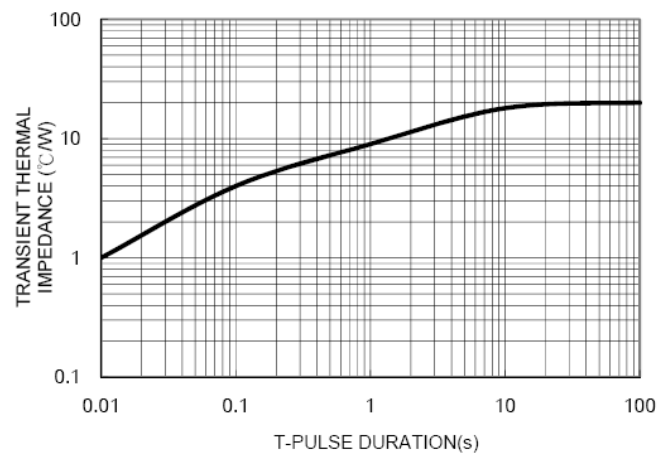


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE





SB2020 THRU SB20150
Schottky Barrier Rectifiers

Ordering Information

Part No.	Package	Packing
SB2020~SB20150	TO-220AC	50pcs/Tube