

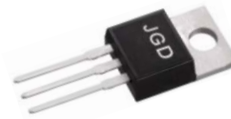


SB1020CT THRU SB10150CT

Dual Common Cathode Schottky Rectifiers

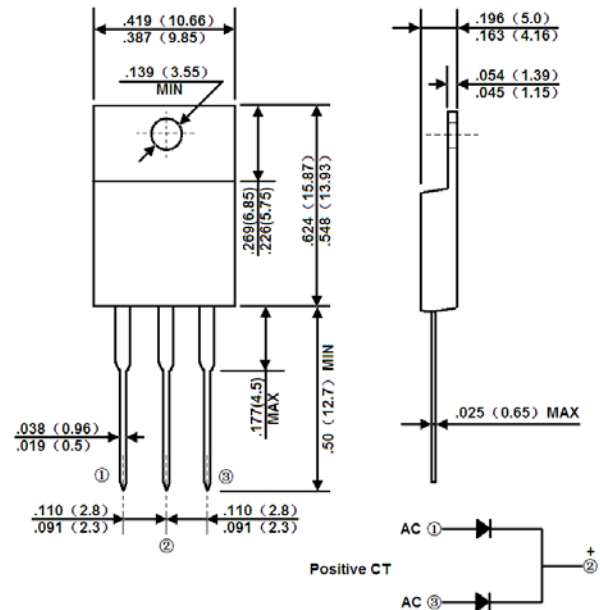
Features

- * 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



Package Outline Dimensions in inches (millimeters)

TO-220AB:



Mechanical Data

- * Cases: TO-220AB Molded plastic
- * Molding compound, UL flammability classification rating 94V-0
- * Terminal: Matte tin plated leads, solderable per JESD22-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 CT	SB 1030 CT	SB 1040 CT	SB 1050 CT	SB 1060 CT	SB 1090 CT	SB 10100 CT	SB 10150 CT	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}	120								A
Maximum instantaneous forward voltage (Note 2) $I_F=5A$	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
		10			5		-			
		-				2				
Voltage rate of change (Rated VR)	dV/dt	10000								V/ μs
Typical Thermal Resistance	$R_{\theta JC}$	3								$^\circ\text{C}/W$
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、 Note 1: Pulse test with PW=300 μs , 1% duty cycle

Ratings and Characteristic Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

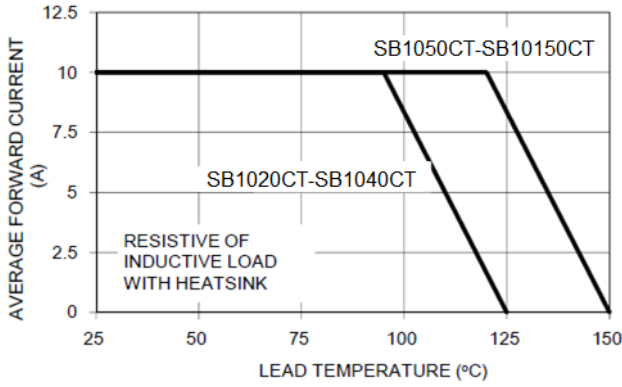


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

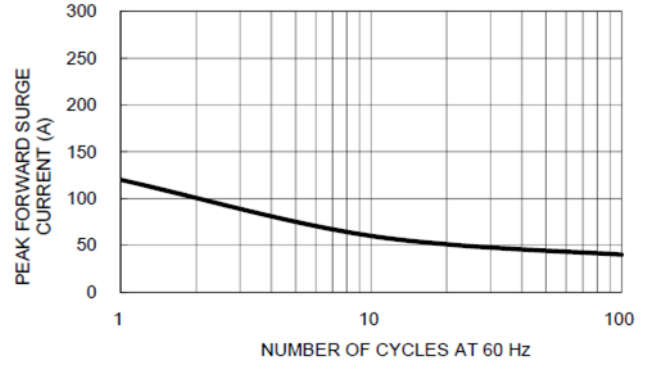


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

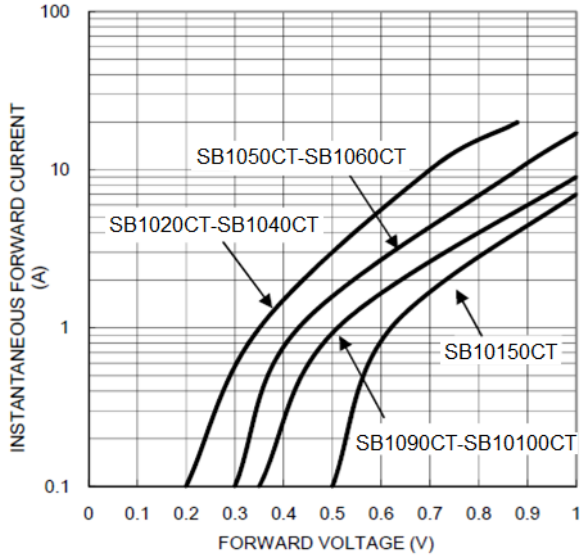


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

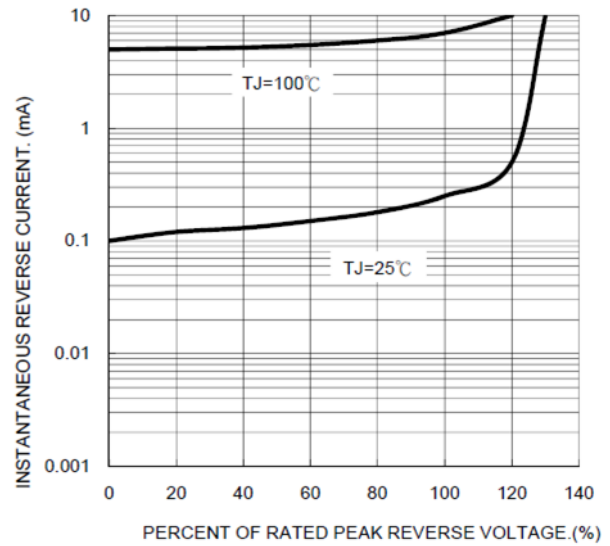


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

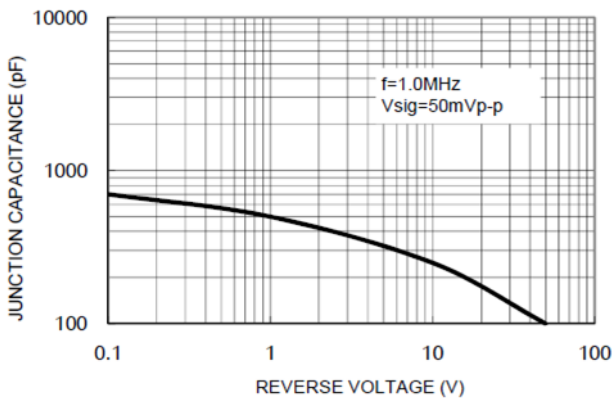
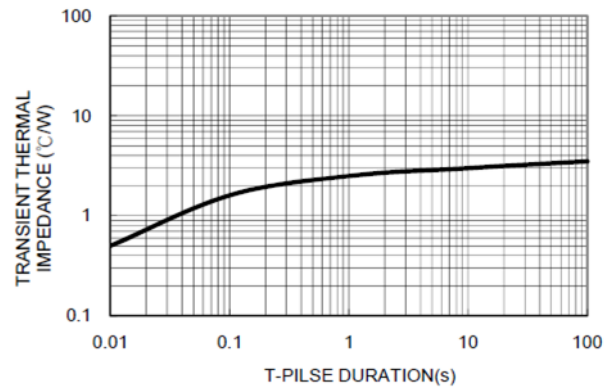


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG





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Ordering Information

Part No.	Package	Packing
SB1020CT~SB10150CT	TO-220AB	50pcs/Tube