

Features

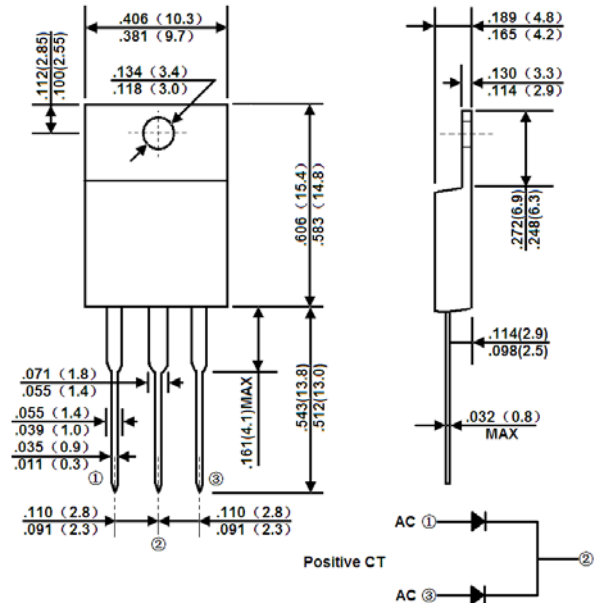
- * Low power loss, high efficiency
- * Guard-ring for overvoltage protection
- * High surge current capability
- * Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT

Package Outline Dimensions in inches (millimeters)

ITO-220AB:



Mechanical Data

- * Case: ITO-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 FCT | SB 1030 FCT | SB 1040 FCT | SB 1050 FCT | SB 1060 FCT | SB 1090 FCT | SB 10100 FCT | SB 10150 FCT | 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 1) $I_F = 5 A$ | V_F | 0.55 | | | 0.70 | | 0.90 | | 1.00 | V | |
| Maximum reverse current @ rated VR | I_R | $T_J = 25^\circ C$ | | | | | 0.5 | | | | mA |
| | | $T_J = 100^\circ C$ | | | | | 15 | | 10 | | |
| | | $T_J = 125^\circ C$ | | | | | - | | | | |
| Typical thermal resistance | $R_{\theta JC}$ | 3.5 | | | | | 4 | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +125 | | | | | -55 to +150 | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | | °C |

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

Ratings and Characteristic Curves

FIG. 1 FORWARD CURRENT DERATING CURVE

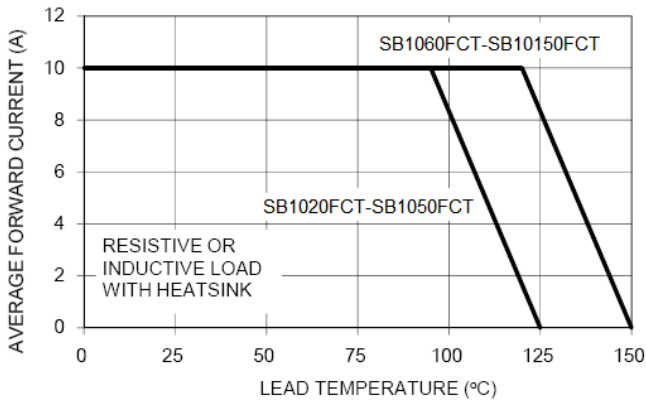


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

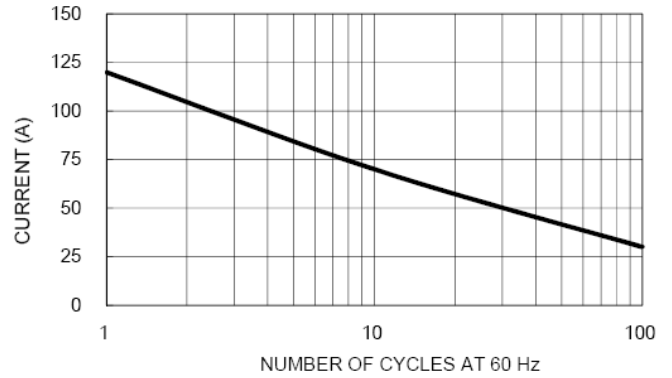


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

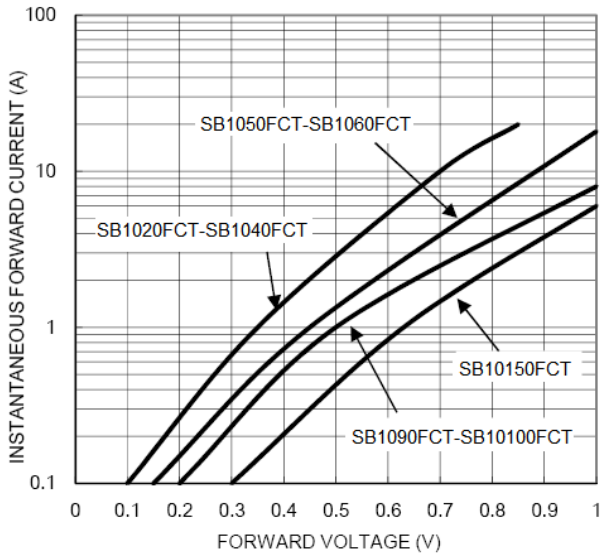


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

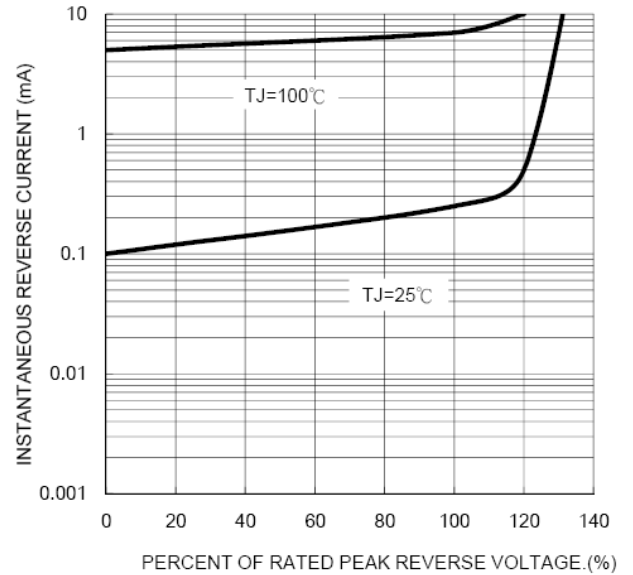


FIG. 5 TYPICAL JUNCTION CAPACITANCE

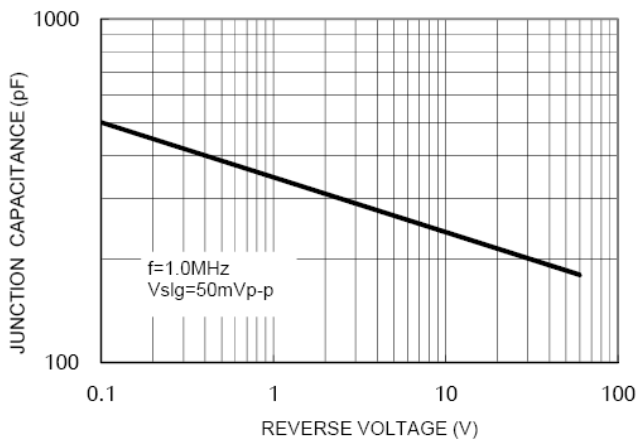
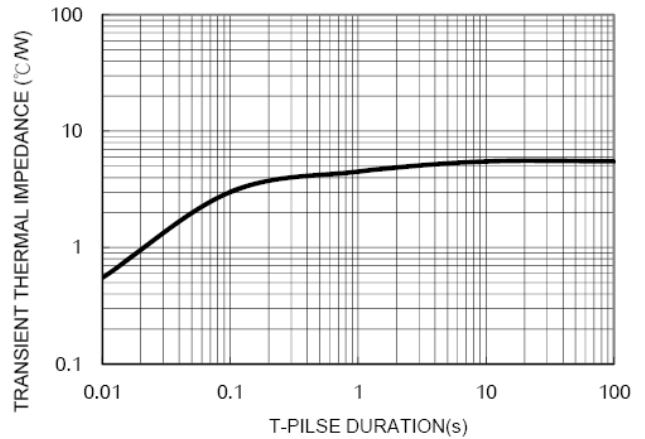


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE





SB1020FCT THRU SB10150FCT

Dual Common Cathode Schottky Rectifiers

Ordering Information

| Part No. | Package | Packing |
|----------------------|-----------|------------|
| SB1020FCT~SB10150FCT | ITO-220AB | 50pcs/Tube |