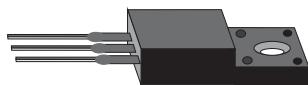


RoHS Compliant Product

A suffix of "-C" specifies halogen &amp; lead-free

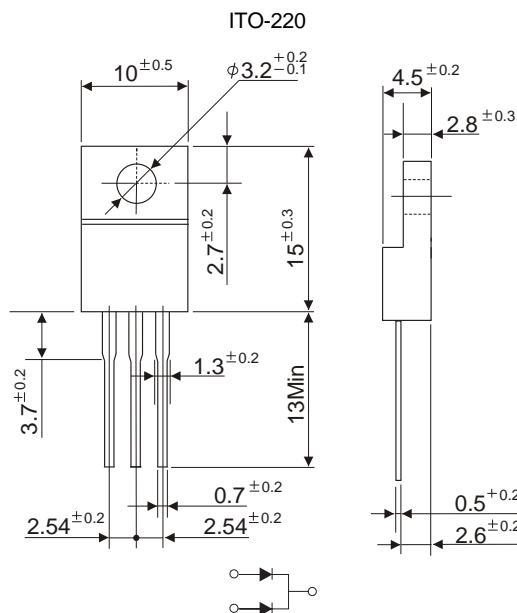


## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any
- \* Weight: 2.24 grams(Aproximately)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	SBR30100RF	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RSM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current (Per Leg) (Per Device)	$I_F$	15 30	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	180	A
Maximum Instantaneous Forward Voltage ( $I_F = 15$ Amps, $T_A = 25^\circ C$ , per leg)	$V_F$	0.85	V
Maximum Instantaneous Forward Voltage ( $I_F = 15$ Amps, $T_A = 125^\circ C$ , per leg)		0.72	
Maximum DC Reverse Current $T_a=25^\circ C$ at Rated DC Blocking Voltage (Note H) $T_a=125^\circ C$	$I_R$	0.03 6	mA
Typical Junction Capacitance (Note1)	$C_J$	350	pF
Typical Thermal Resistance (Note 2)	$R_{\theta J\phi}$	4.0	°C/W
Voltage Rate Of Change (Rated $V_R$ )	$dv/dt$	10000	V/us
Operating Temperature Range	$T_J$	-50 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-65 ~ +175	°C

**NOTES:**

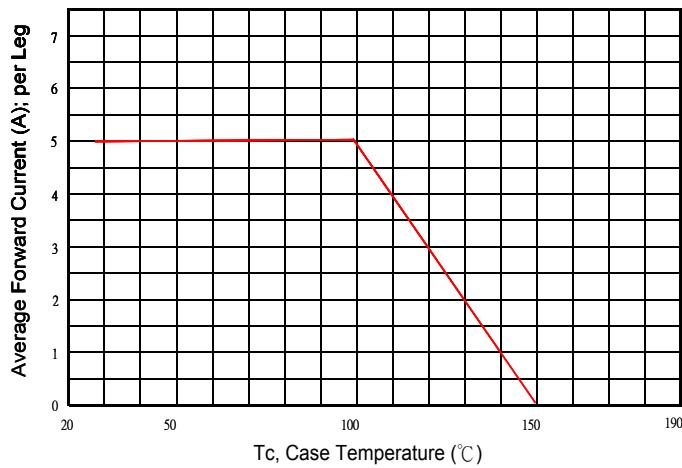
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.

2. Thermal Resistance Junction to Case.

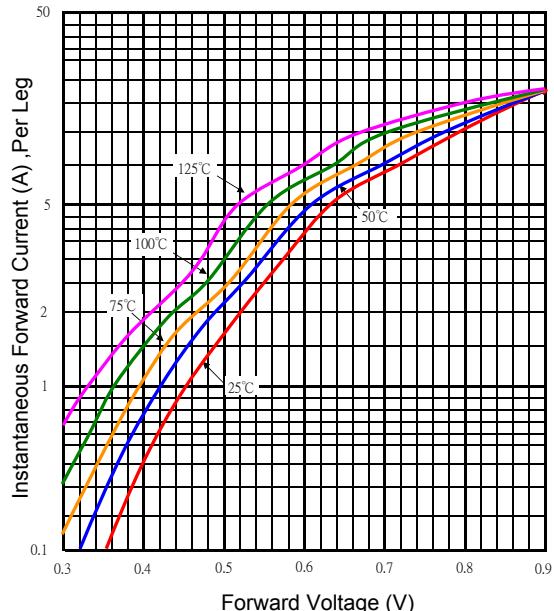
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### RATING AND CHARACTERISTIC CURVES

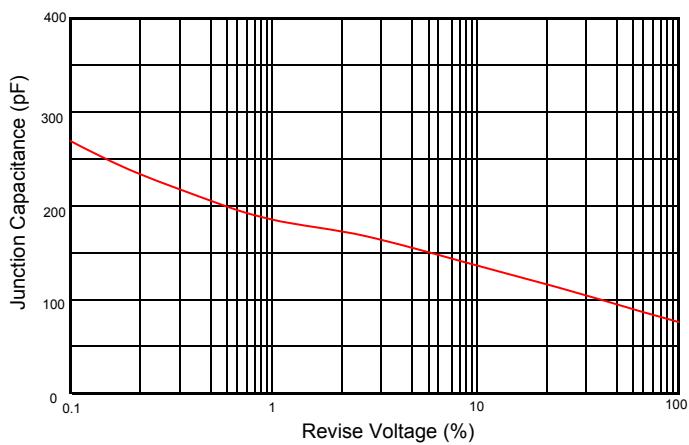
Typical Forward Current Derating Curve



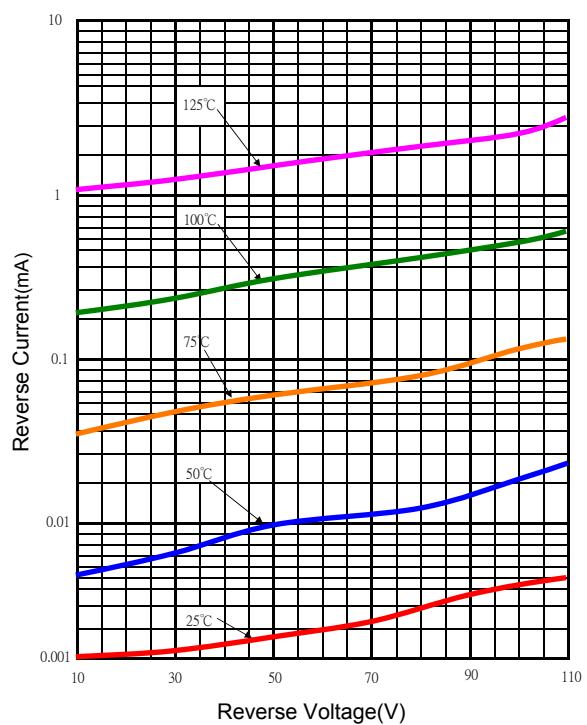
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non-Repetitive Forward Surge Current

