

RoHS Compliant Product
A suffix of "-C" specifies halogen free

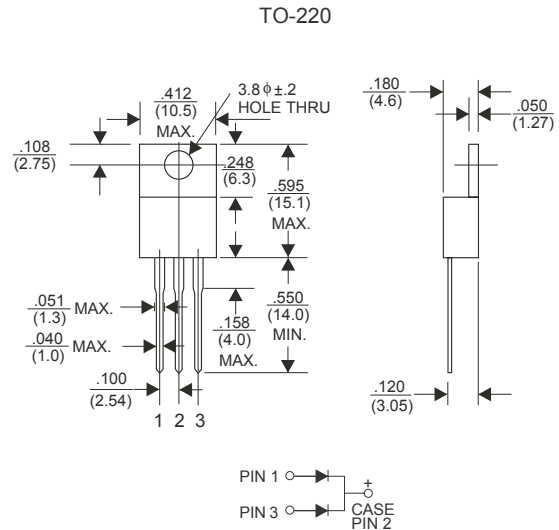


FEATURES

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

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.93 grams (approximate)



Dimensions in millimeters

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, de-rate current by 20%.

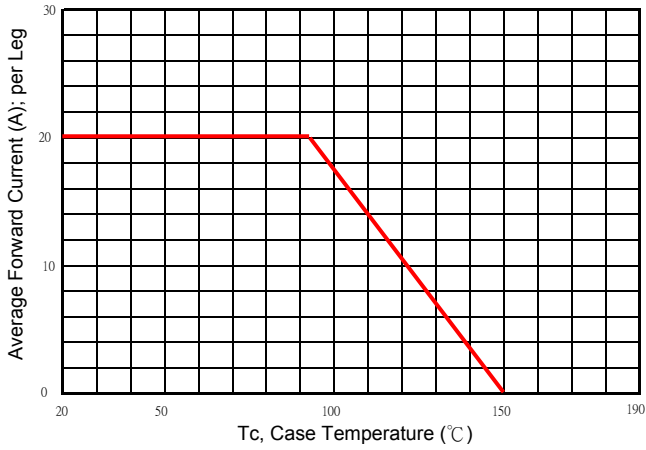
TYPE NUMBER	SYMBOL	SBR40100R	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RSM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current	I_F	20 40	A
Per Leg			
Per Device			
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	280	A
Maximum Instantaneous Forward Voltage (Note.3)	V_F	0.87 0.70	V
$I_F = 20 \text{ A}, T_A = 25^\circ\text{C}$, per leg			
$I_F = 20 \text{ A}, T_A = 125^\circ\text{C}$, per leg			
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.3 20	mA
$T_A = 25^\circ\text{C}$			
$T_A = 125^\circ\text{C}$			
Typical Junction Capacitance (Note 1)	C_J	350	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5	$^\circ\text{C} / \text{W}$
Voltage Rate Of Change (Rated V_R)	dv / dt	10000	$\text{V} / \mu\text{s}$
Operating Temperature Range T_J	T_J	-50 ~ +150	$^\circ\text{C}$
Storage Temperature Range T_{STG}	T_{STG}	-65 ~ +175	$^\circ\text{C}$

NOTES:

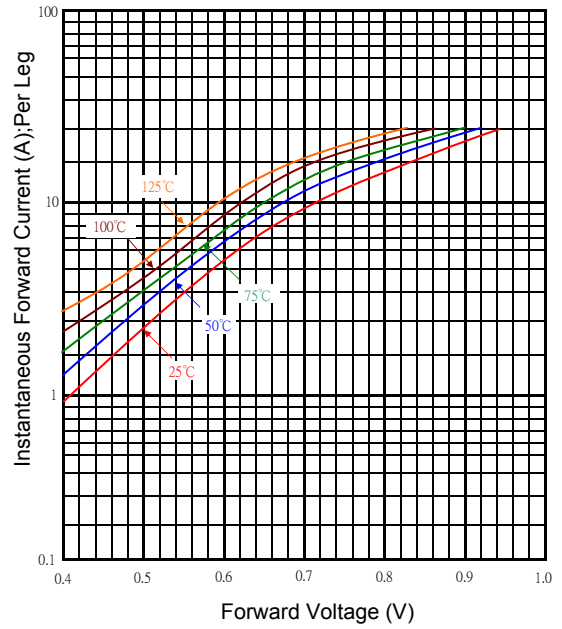
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse test: 300uS pulse width, 1% duty cycle.

RATINGS AND CHARACTERISTIC CURVES

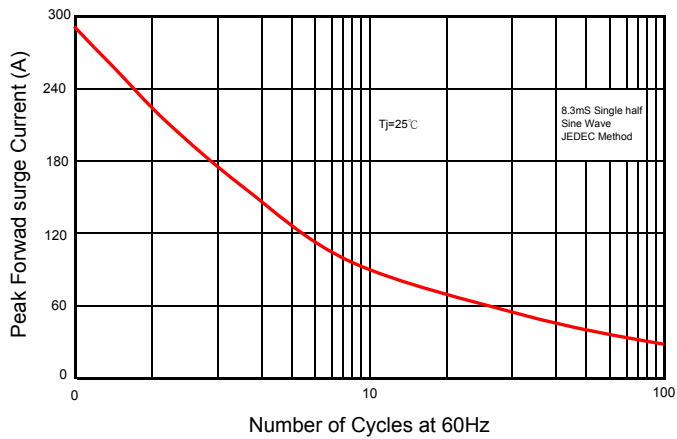
Typical Forward Current Derating Curve



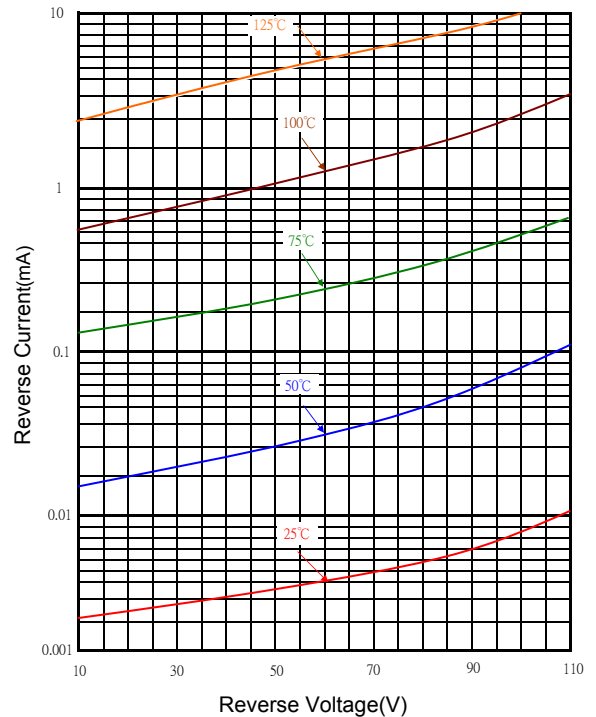
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

