

RoHS Compliant Product

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

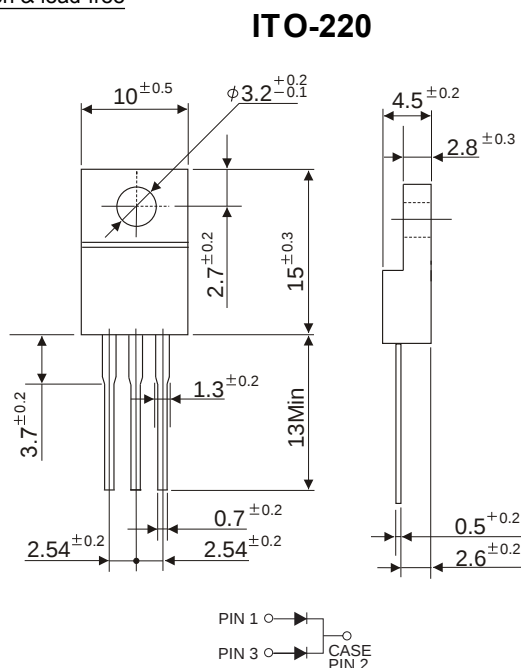


FEATURES

- * 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(Approximately)



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, derate current by 20%.

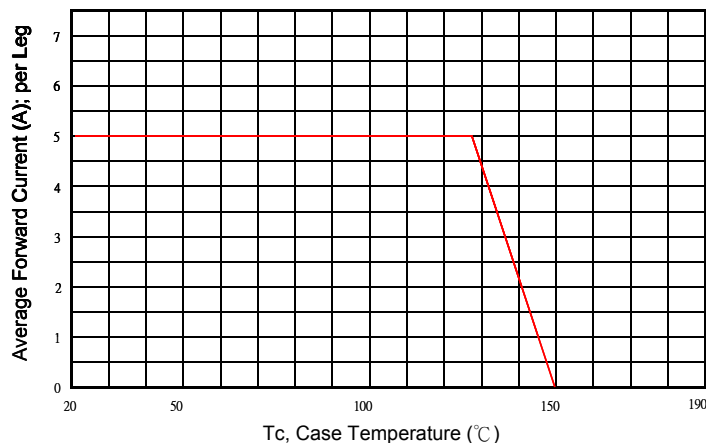
TYPE NUMBER	SYMBOL	SBR2040F	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RSM}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current (Per Leg) (Per Device)	I_F	10 20	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	180	A
Maximum Instantaneous Forward Voltage ($I_F = 10$ Amps, $T_A = 25^\circ\text{C}$, per leg)	V_F	0.57	V
Maximum Instantaneous Forward Voltage ($I_F = 10$ Amps, $T_A = 125^\circ\text{C}$, per leg)		0.53	
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage (Note 3) $T_A = 125^\circ\text{C}$	I_R	0.30 15	mA
Typical Junction Capacitance (Note 1)	C_J	450	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	4.0	$^\circ\text{C/W}$
Voltage Rate Of Change (Rated V_R)	dv/dt	10000	V/us
Operating Temperature Range	T_J	-50 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +175	$^\circ\text{C}$

NOTES:

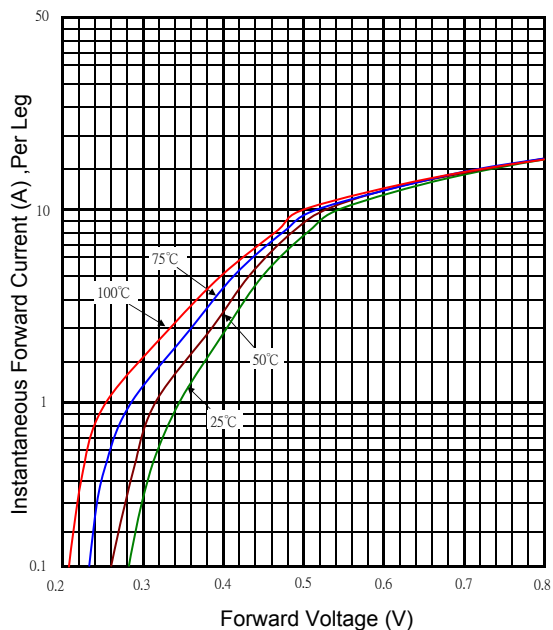
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test : Pulse Width = 300us, Duty Cycle <= 2.0%.

RATING AND CHARACTERISTIC CURVES

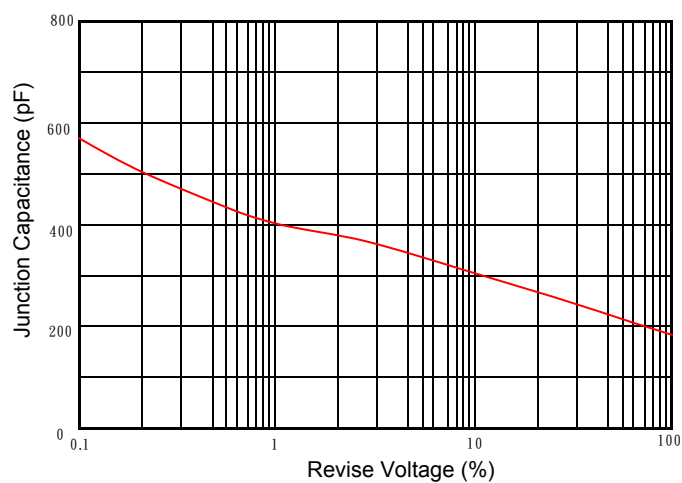
Typical Forward Current Derating Curve



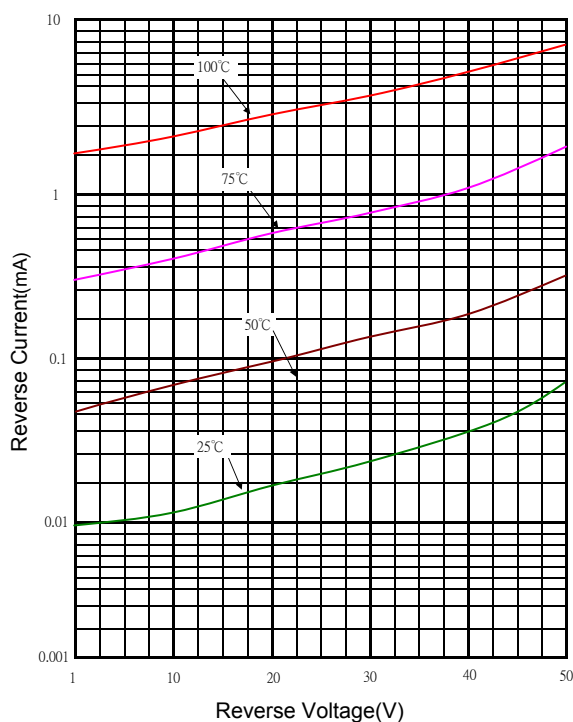
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

