

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

## FEATURES

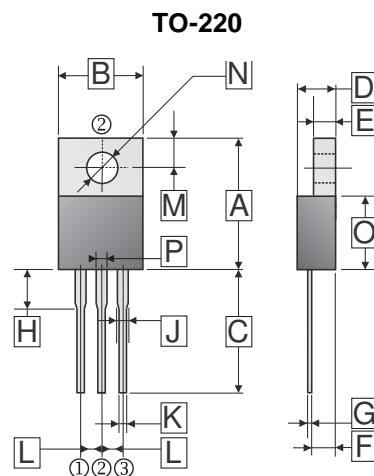
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

## MECHANICAL DATA

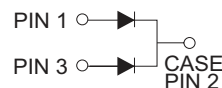
- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 2.064 grams (approximate)

## ORDER INFORMATION

Part Number	Type
SBR20150	Lead (Pb)-free
SBR20150-C	Lead (Pb)-free and Halogen-free



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.22	16.51	J	0.70	1.78
B	9.57	10.90	K	0.38	1.11
C	12.50	14.75	L	2.01	3.07
D	3.56	5.10	M	2.22	3.43
E	0.51	1.47	N	3.10	4.31
F	2.03	3.19	O	8.10	9.65
G	0.279	0.76	P	1.18	Typ.
H	2.95	4.5			



## 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%.)

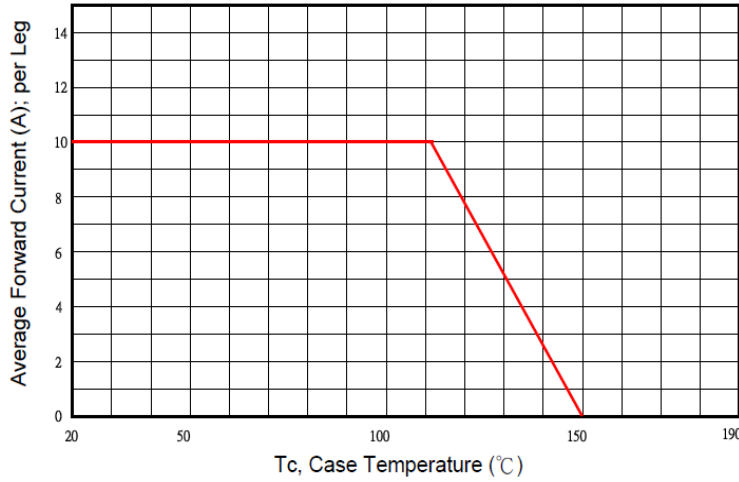
Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	150	V
Working Peak Reverse Voltage	$V_{RSM}$	150	V
Maximum DC Blocking Voltage	$V_{DC}$	150	V
Maximum Average Forward Rectified Current	Per Leg	10	A
	Per Device	20	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	180	A
Maximum Instantaneous Forward Voltage	$V_F$	$I_F=10A, T_A=25^\circ C, \text{ per leg}$	0.87
		$I_F=10A, T_A=125^\circ C, \text{ per leg}$	0.76
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>4</sup>	$I_R$	$T_A=25^\circ C$	0.03
		$T_A=125^\circ C$	8
Typical Junction Capacitance <sup>1</sup>	$C_J$	450	pF
Typical Thermal Resistance <sup>2</sup>	$R_{\theta JC}$	2	°C / W
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JA}$	10	°C / W
Voltage Rate Of Change (Rated $V_R$ )	$dv / dt$	10000	V / $\mu s$
Operating Temperature Range $T_J$	$T_J$	-50~150	°C
Storage Temperature Range $T_{STG}$	$T_{STG}$	-65~175	°C

Notes:

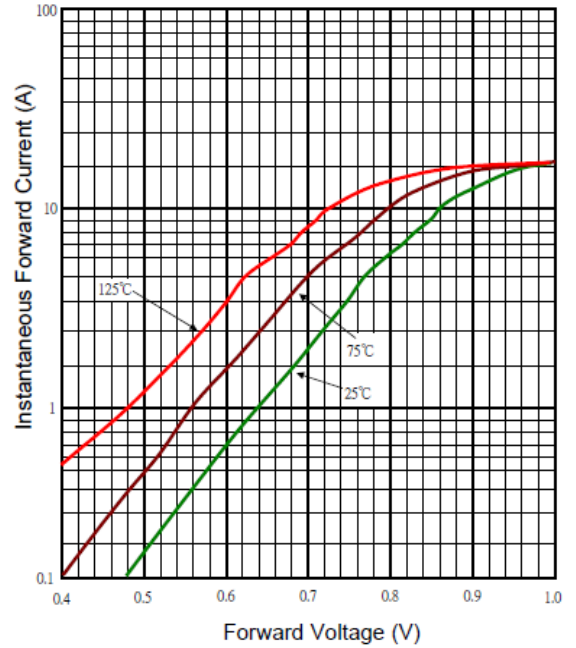
1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.
3. Thermal Resistance Junction to Ambient.
4. Pulse test: 300uS pulse width, 1% duty cycle.

**RATINGS AND CHARACTERISTIC CURVES**

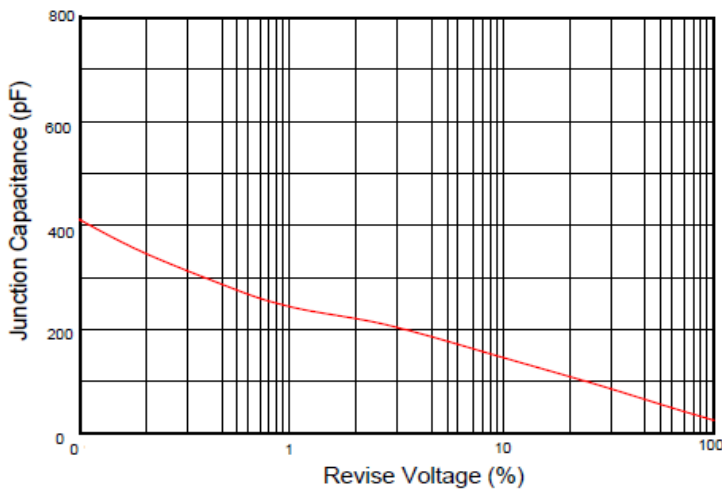
Typical Forward Current Derating Curve



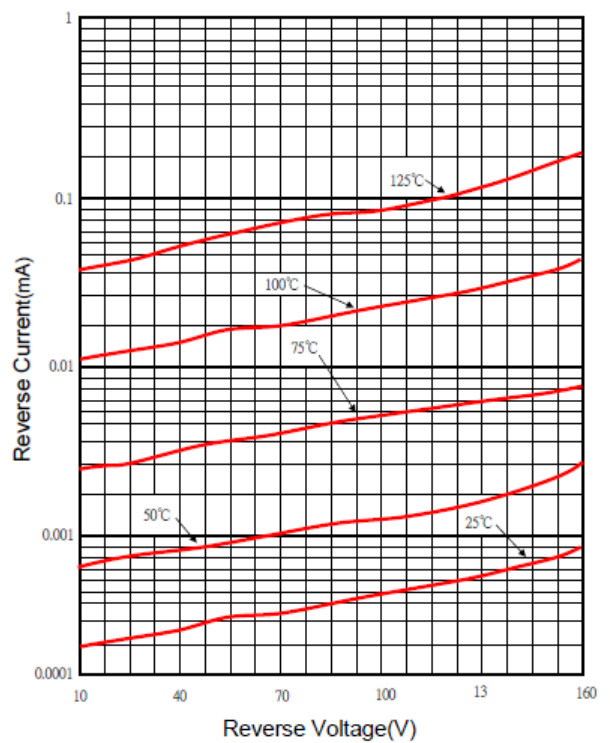
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current

