Elektronische Bauelemente

SBR20150

Voltage 150 V

20.0 Amp Schottky Barrier Rectifiers

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

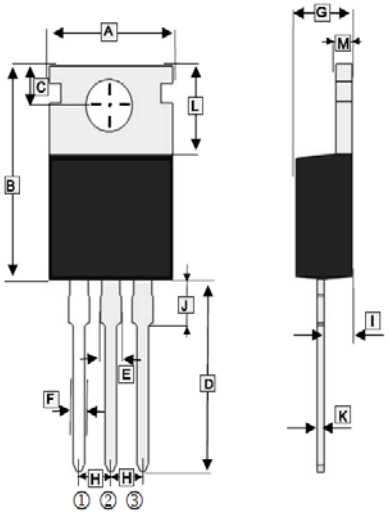
FEATURES

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

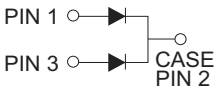
MECHANICAL DATA

- 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)

TO-220



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.7	10.6	H	2.34	2.74
B	14.2	16.5	I	2.0	2.9
C	2.54	3.4	J	2.7	3.3
D	12.7	14.7	K	0.36	0.6
E	1.2	1.8	L	5.8	6.85
F	0.4	1.0	M	1.2	1.4
G	3.6	4.8			



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	I_F	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	I_F=10A, T_A=25°C, per leg	V_F	0.87	V
	I_F=10A, T_A=125°C, per leg		0.76	
Maximum DC Reverse Current at Rated DC Blocking Voltage [4]	T_A=25°C	I_R	0.03	mA
	T_A=125°C		8	
Typical Junction Capacitance [1]		C_J	450	pF
Typical Thermal Resistance [2]		$R_{\theta JC}$	2	°C / W
Typical Thermal Resistance [3]		$R_{\theta JA}$	10	°C / W
Voltage Rate Of Chance (Rated V_R)		dv / dt	10000	V / µs
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.

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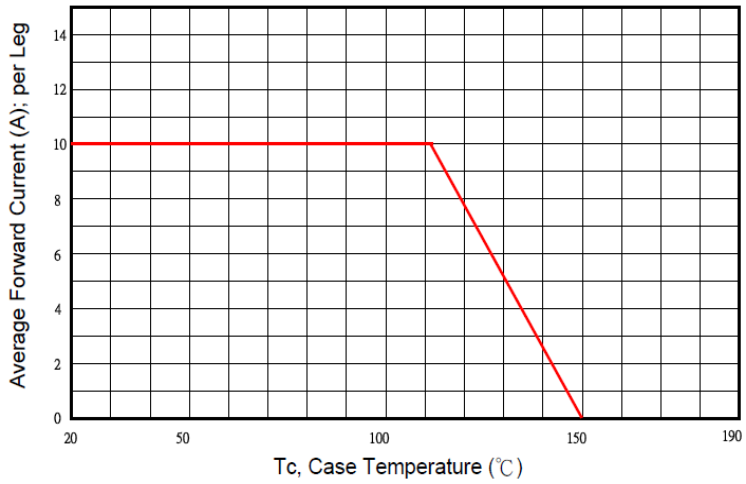
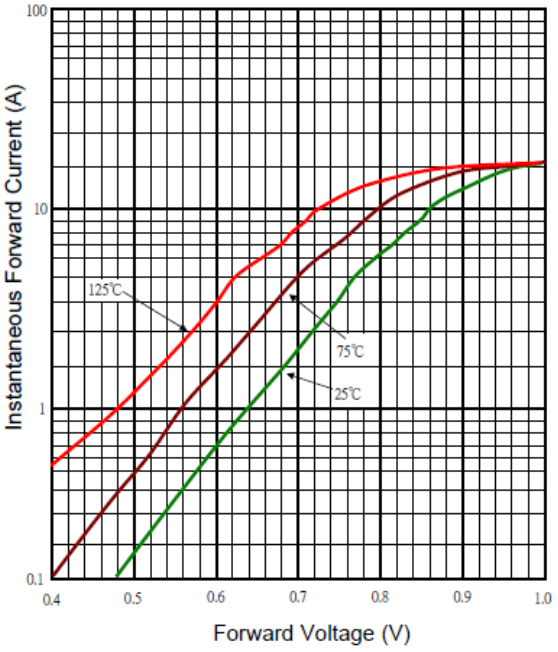
RATINGS AND CHARACTERISTIC CURVES

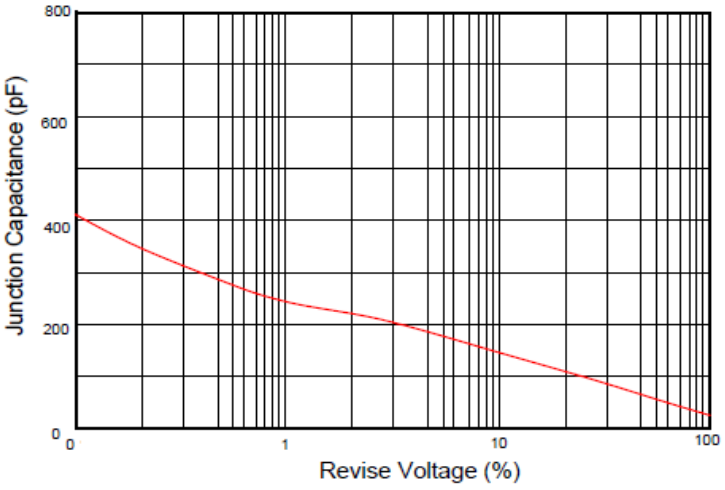
Typical Forward Current Derating Curve



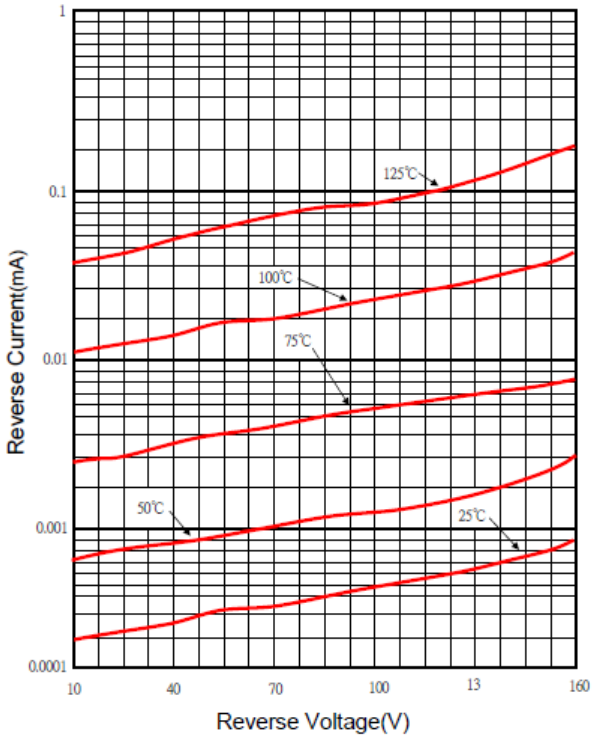
Typical Forward Characteristic



Typical Junction Capacitance



Typical Reverse Characteristic



Maximum Non- Repetitive Forward Surge Current