

Features

- High Current Capability, High Efficiency
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 1.5°C/W Junction to Case

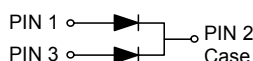
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1520CT	MBR1520CT	20V	14V	20V
MBR1530CT	MBR1530CT	30V	21V	30V
MBR1535CT	MBR1535CT	35V	24.5V	35V
MBR1540CT	MBR1540CT	40V	28V	40V
MBR1545CT	MBR1545CT	45V	31.5V	45V
MBR1560CT	MBR1560CT	60V	42V	60V
MBR1580CT	MBR1580CT	80V	56V	80V
MBR15100CT	MBR15100CT	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	15A	$T_C=125^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage MBR1520CT-45CT MBR1560CT MBR1580CT-100CT	V_F	0.84V 0.90V 0.95V	$I_{FM}=15A$ $T_J=25^\circ\text{C}$ $I_{FM}=16A$
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR1520CT-45CT MBR1560CT-100CT MBR1520CT-45CT MBR1560CT MBR1580CT-100CT	I_R	0.1mA 0.01mA 20mA 10mA 2mA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$

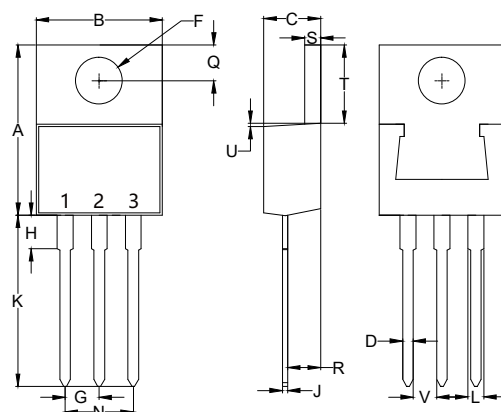
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

Internal Structure



15 Amp Schottky Barrier Rectifier 20 to 100 Volts

TO-220AB



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.429	9.65	10.90	
C	0.140	0.201	3.56	5.10	
D	0.020	0.045	0.51	1.14	
F	0.131	0.170	3.34	4.31	Φ
G	0.079	0.121	2.01	3.07	
H	-----	0.250	-----	6.35	
J	0.011	0.025	0.28	0.64	
K	0.500	0.580	12.70	14.73	
L	0.045	0.060	1.14	1.52	
N	0.158	0.242	4.02	6.14	
Q	0.087	0.135	2.22	3.43	
R	0.080	0.126	2.04	3.19	
S	0.045	0.055	1.14	1.39	
T	0.230	0.270	5.84	6.86	
U	-----	0.050	-----	1.27	
V	0.045	-----	1.15	-----	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

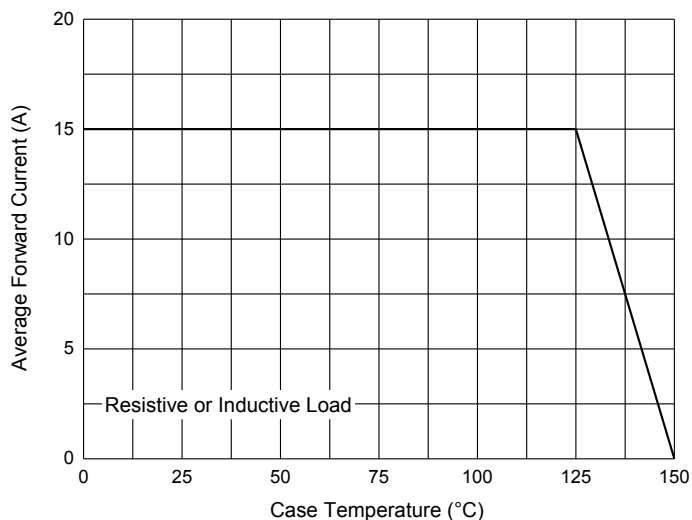


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

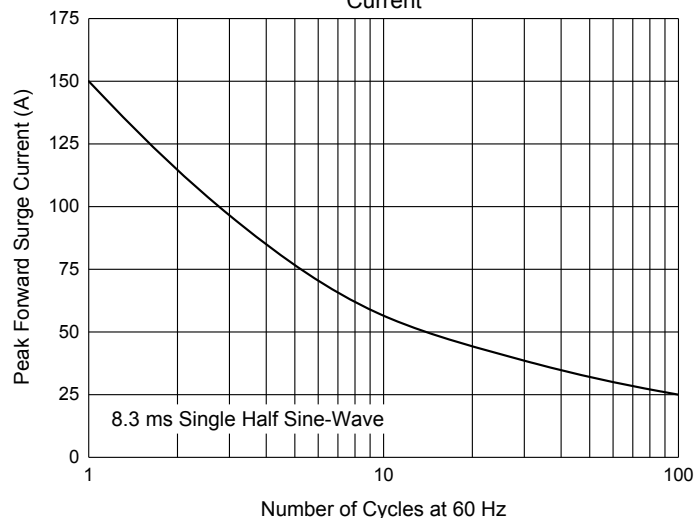


Fig. 3 - Typical Instantaneous Forward Characteristics

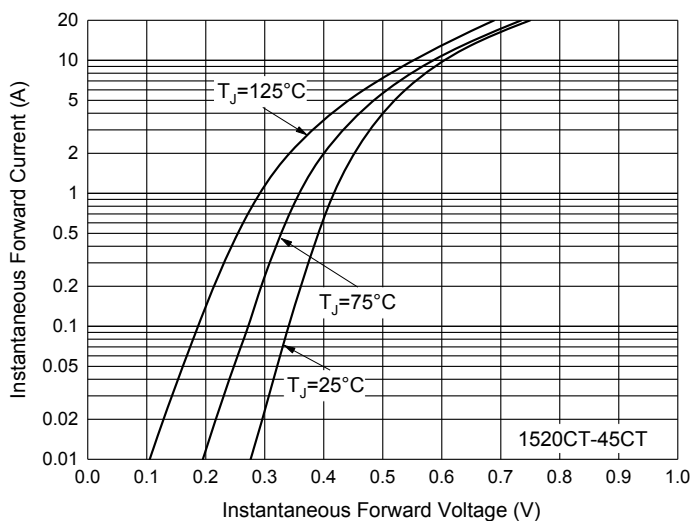


Fig. 1 - Typical Instantaneous Forward Characteristics

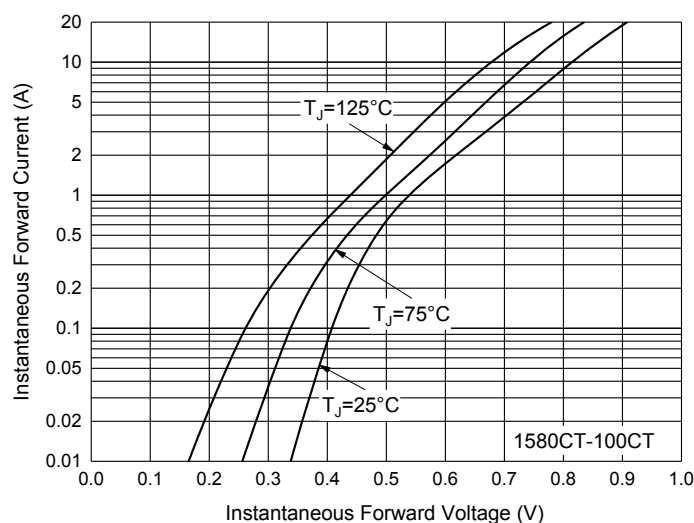


Fig. 2 - Typical Reverse Leakage Characteristics

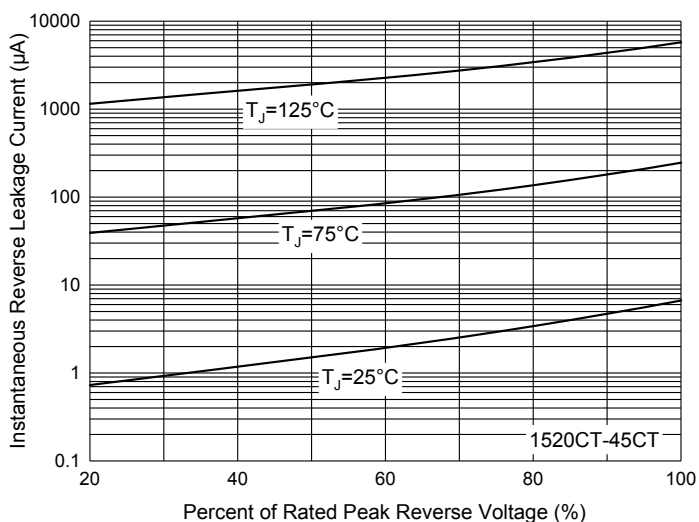
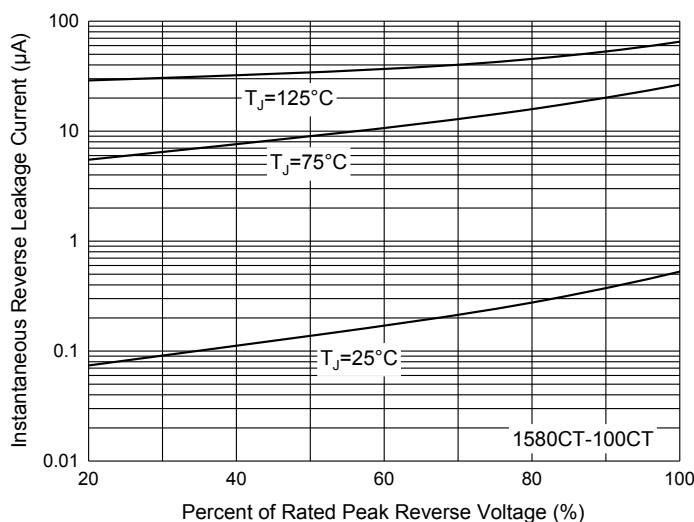


Fig. 2 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk;1Kpcs/Box

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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