

Features

- Low Power Loss, High Efficiency
- Guardring for Overvoltage Protection
- Low Forward Voltage Drop And High Frequency Operation
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +175°C
- Mounting Torque: 5 in-lbs Maximum
- Typical Thermal Resistance Per Leg : 1.7°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3030CT	MBR3030CT	30V	21V	30V
MBR3035CT	MBR3035CT	35V	24.5V	35V
MBR3040CT	MBR3040CT	40V	28V	40V
MBR3045CT	MBR3045CT	45V	31.5V	45V
MBR3050CT	MBR3050CT	50V	35V	50V
MBR3060CT	MBR3060CT	60V	42V	60V

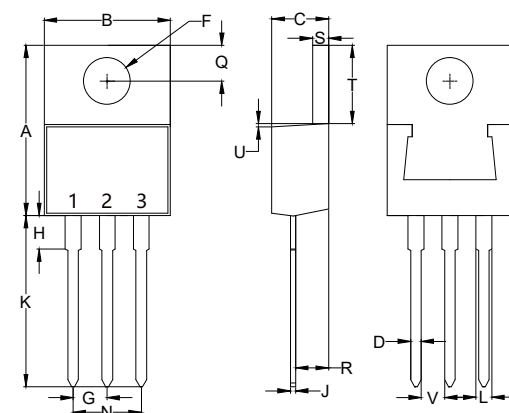
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30A	$T_C=100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	200A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage MBR3030CT~3045CT	V_F	0.70V	$I_{FM}=15A; T_J=25^\circ\text{C}$ $I_{FM}=30A; T_J=25^\circ\text{C}$ $I_{FM}=30A; T_J=125^\circ\text{C}$
		0.84V	
		0.72V	
MBR3050CT~3060CT		0.80V	
		0.95V	$I_{FM}=15A; T_J=25^\circ\text{C}$ $I_{FM}=30A; T_J=25^\circ\text{C}$
		0.85V	$I_{FM}=30A; T_J=125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.1mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance MBR3030CT-3045CT MBR3050CT-3060CT	C_J	450pF 400pF	Measured at 1.0MHz, $V_R=4.0V$

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

30 Amp Schottky Barrier Rectifier 30 to 60 Volts

TO-220AB



PIN 1 PIN 2
PIN 3 CASE

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

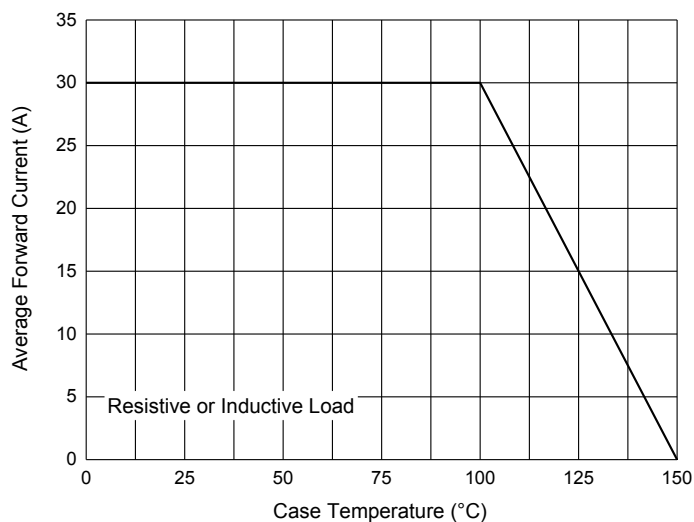


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

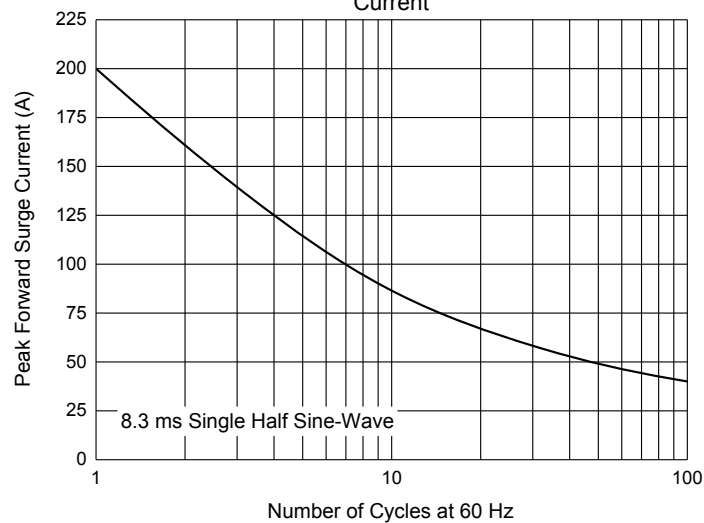


Fig. 3 - Typical Instantaneous Forward Characteristics

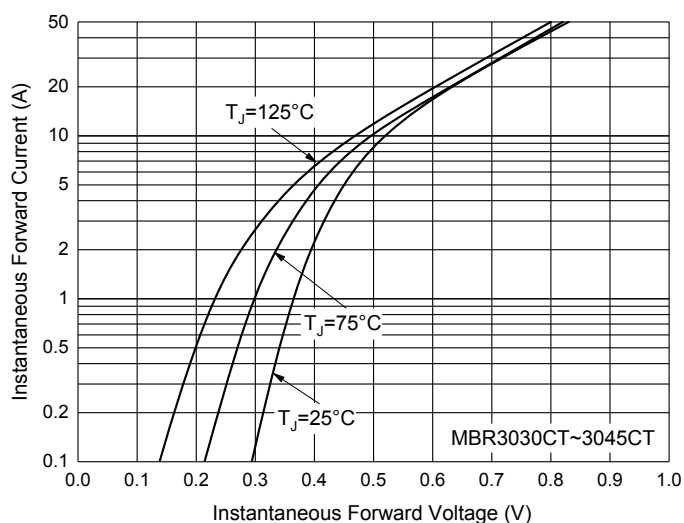


Fig. 4 - Typical Instantaneous Forward Characteristics

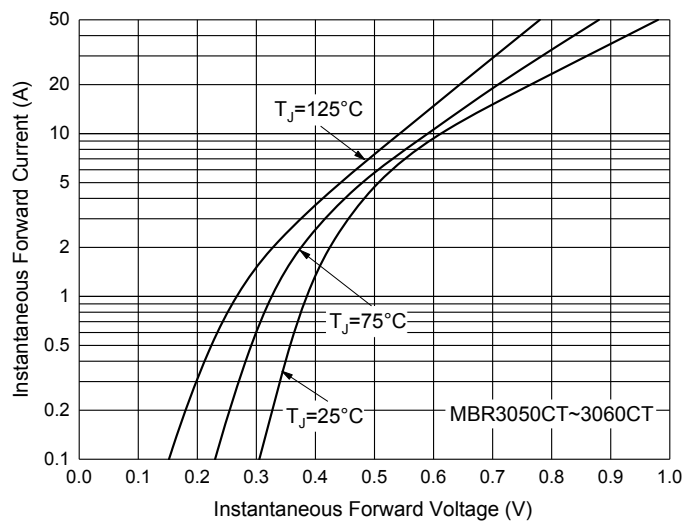


Fig. 5 - Typical Reverse Leakage Characteristics

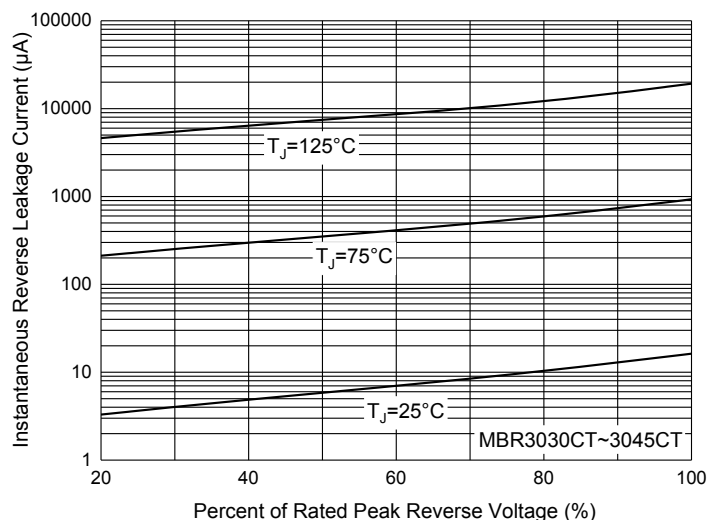
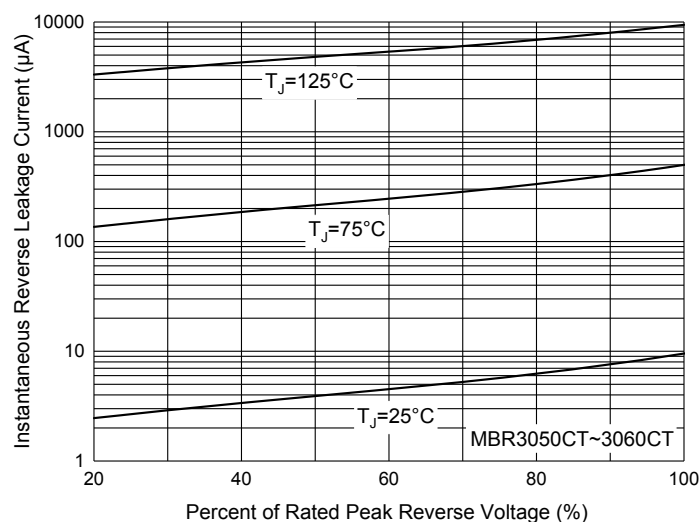


Fig. 6 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube, 1Kpcs/Box, 5Kpcs/Carton

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

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