



**THE DATASHEET OF
MBR3020FCT-BP**



Features

- Low Power Loss and High Efficiency
- High Surge Capacity and High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Typical Thermal Resistance: 5°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3020FCT	MBR3020FCT	20V	14V	20V
MBR3030FCT	MBR3030FCT	30V	21V	30V
MBR3040FCT	MBR3040FCT	40V	28V	40V
MBR3045FCT	MBR3045FCT	45V	31.5V	45V
MBR3060FCT	MBR3060FCT	60V	42V	60V
MBR3080FCT	MBR3080FCT	80V	56V	80V
MBR30100FCT	MBR30100FCT	100V	70V	100V

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}	250A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage 3020FCT~3045FCT 3060FCT~30100FCT	V_F	0.60V 0.85V	$I_{FM}=15A; T_J=25^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage 3020FCT~30100FCT 3020FCT~3045FCT 3060FCT~30100FCT	I_R	0.1mA 20mA 10mA	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$

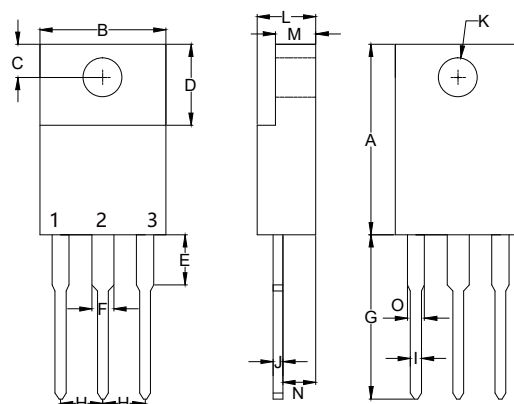
Note :1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Internal Structure



30 Amp Schottky Barrier Rectifier 20 to 100 Volts

ITO-220AB



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.567	0.642	14.40	16.30	
B	-----	0.421	-----	10.70	
C	0.085	0.128	2.15	3.25	
D	0.248	0.272	6.30	6.90	
E	-----	0.177	-----	4.50	
F	-----	0.071	-----	1.80	
G	0.500	0.539	12.70	14.20	
H	0.100		2.55		
I	-----	0.035	-----	0.90	
J	-----	0.032	-----	0.80	
K	0.102	0.150	2.60	3.80	Φ
L	-----	0.201	-----	5.10	
M	-----	0.140	-----	3.56	
N	0.083	0.126	2.10	3.20	
O	-----	0.071	-----	1.80	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

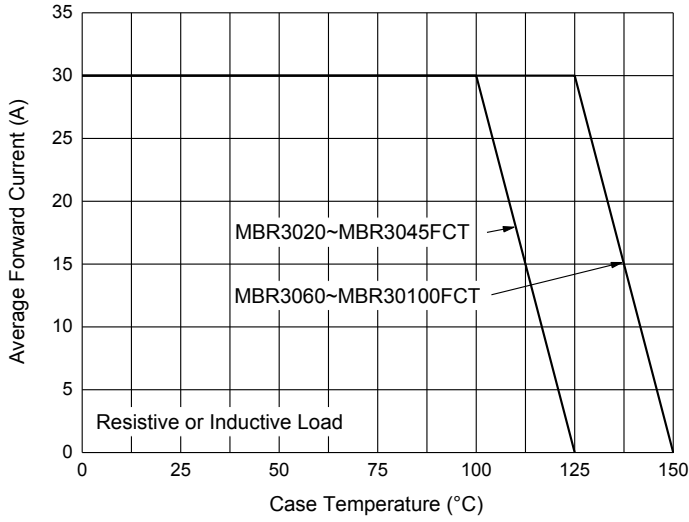


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

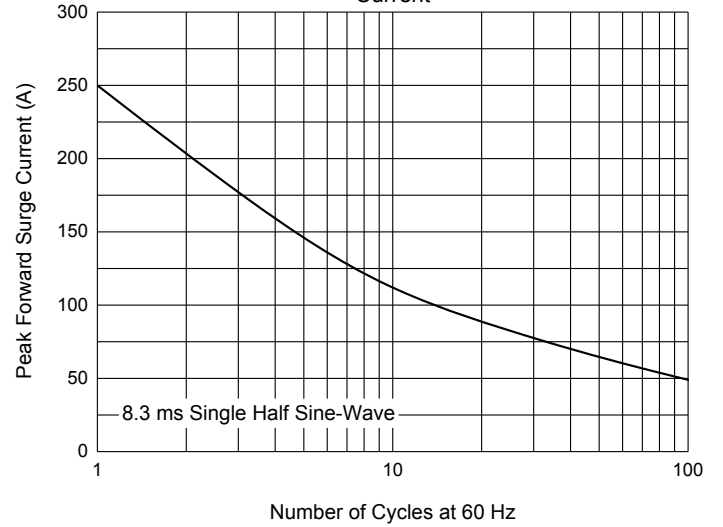


Fig. 3 - Typical Instantaneous Forward Characteristics

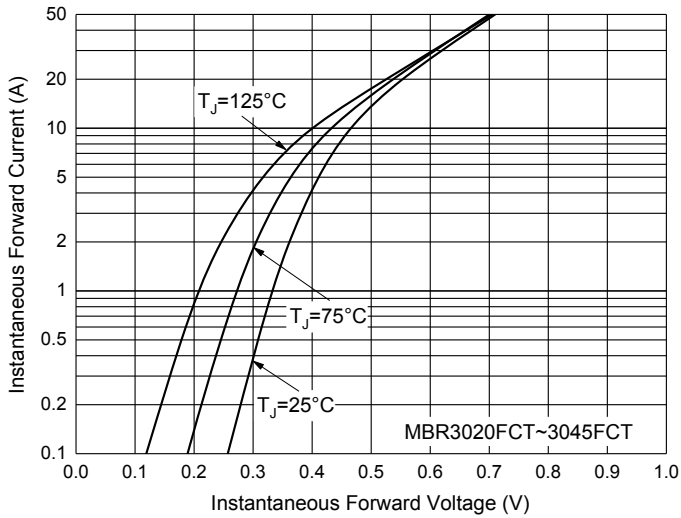


Fig. 4 - Typical Instantaneous Forward Characteristics

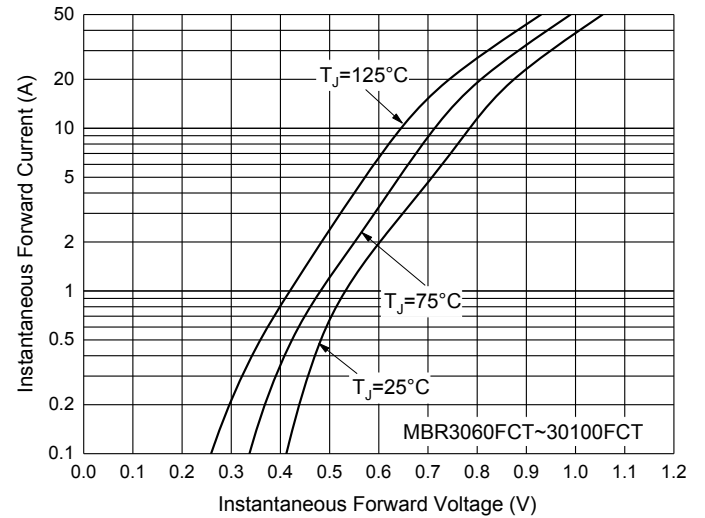


Fig. 5 - Typical Reverse Leakage Characteristics

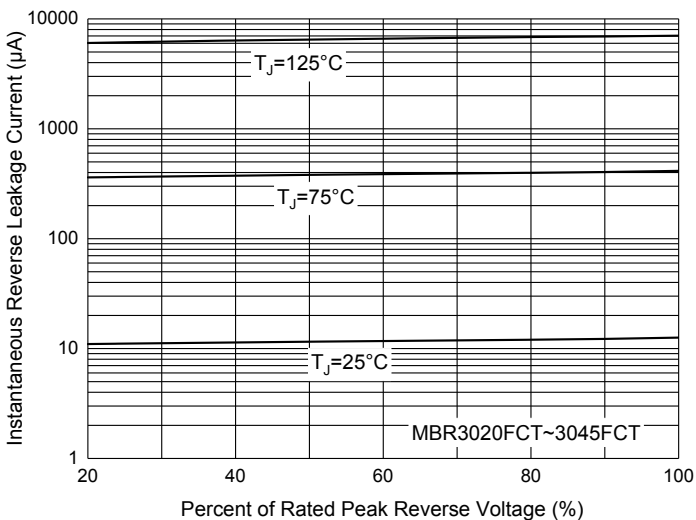
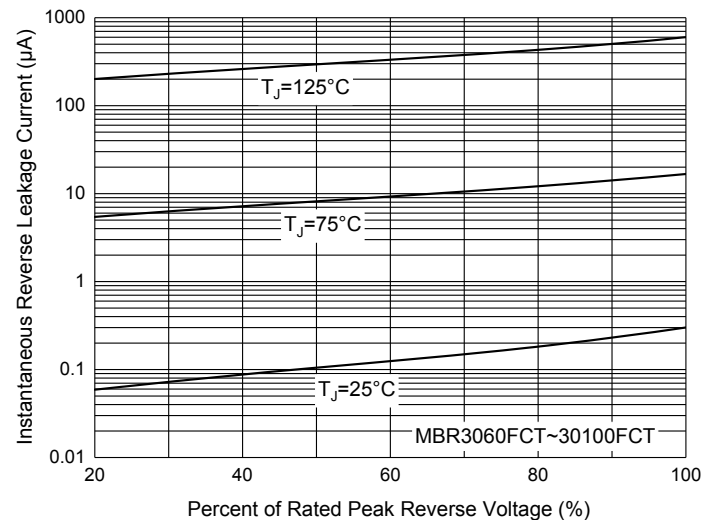


Fig. 6 - Typical Reverse Leakage Characteristics



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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