

**M·C·C·**

Micro Commercial Components



Micro Commercial Components  
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**Features**

- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : type number
- Halogen free available upon request by adding suffix "-HF"

**Maximum Ratings**

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

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

**Electrical Characteristics @25°C Unless Otherwise Specified**

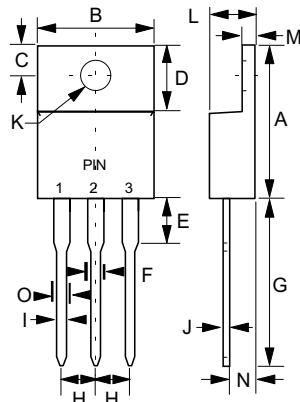
Average Forward Current	$I_{F(AV)}$	30 A	$T_C = 100^\circ C$
Peak Forward Surge Current	$I_{FSM}$	250A	8.3ms, half sine
Maximum Instantaneous Forward Voltage MBR3020FCT~3045FCT MBR3060FCT~30100FCT	$V_F$	0.60V 0.85V	$I_{FM} = 15A; T_J = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR3020FCT~30100FCT MBR3020FCT~3045FCT MBR3060FCT~30100FCT	$I_R$	0.5 mA 30 mA 50 mA	$T_C = 25^\circ C$ $T_C = 125^\circ C$
Typical Thermal Resistance	$R_{thJC}$	5°C/W	(Note 2)

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

2. Thermal resistance from junction to case

**MBR3020FCT****THRU****MBR30100FCT**

**30 Amp**  
**Schottky Barrier**  
**Rectifier**  
**20 to 100 Volts**

**ITO-220AB**

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.583	.642	14.80	16.30	
B	---	.406	---	10.30	
C	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
E	---	.161	---	4.10	
F	---	.071	---	1.80	
G	.512	.543	13.00	13.80	
H	---	.100	---	2.55	
I	---	.035	-.6	0.90	
J	---	.032	---	0.80	
K	.118	.134	3.00	3.40	Ø
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

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**RATING AND CHARACTERISTIC CURVES**  
**MBR3020FCT thru MBR30100FCT**

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FIG.1-FORWARD CURRENT DERATING CURVE

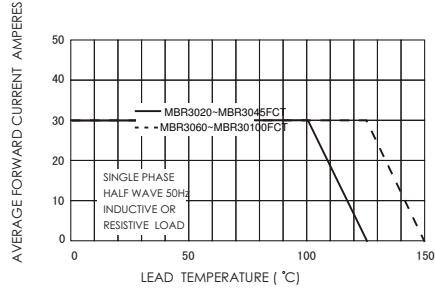


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

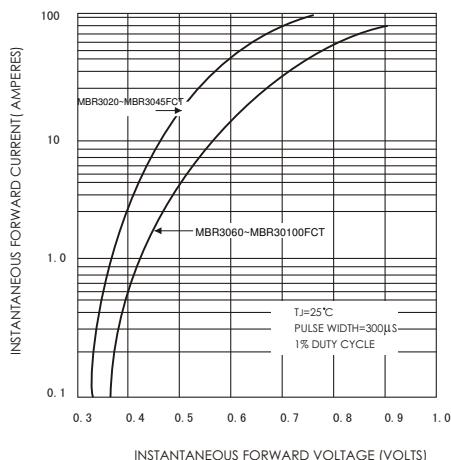


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER DIODE

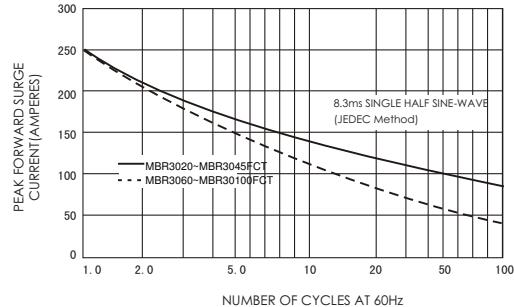
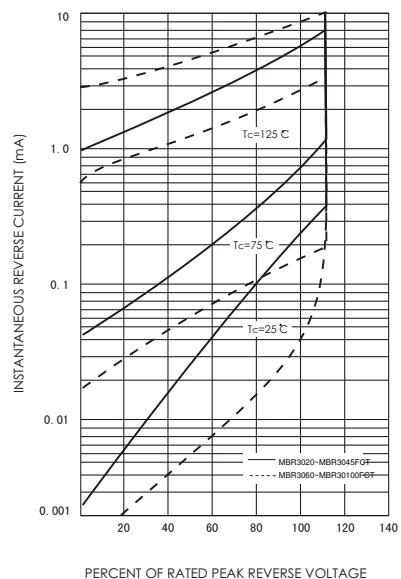


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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## 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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