

# MBR3020FCT THRU MBR30100FCT

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

## Features

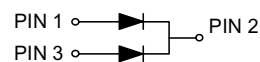
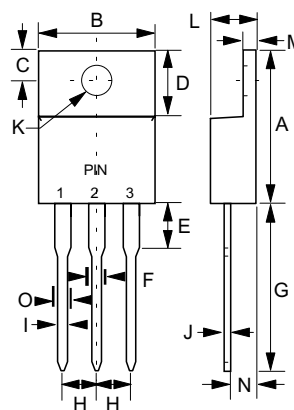
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- 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

## ITO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30 A	$T_C = 100^\circ\text{C}$
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	$I_{FM} = 15A; T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR3020FCT~30100FCT MBR3020FCT~3045FCT MBR3060FCT~30100FCT	$I_R$	0.5 mA 30 mA 50 mA	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$
Typical Thermal Resistance	$R_{thJC}$	5°C/W	(Note 2)

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	---	0.90	
J	---	.032	---	0.80	
K	.118	.134	3.00	3.40	∅
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.  
2. Thermal resistance from junction to case

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

FIG.1-FORWARD CURRENT DERATING CURVE

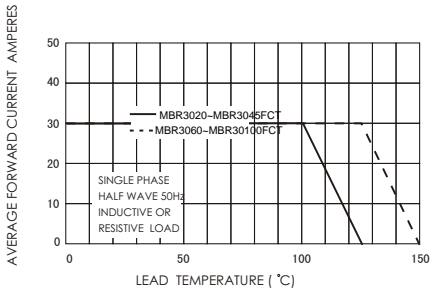


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER DIODE

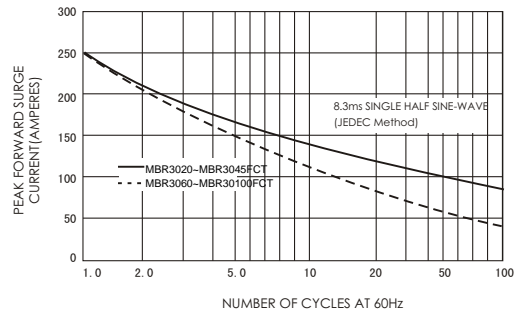


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

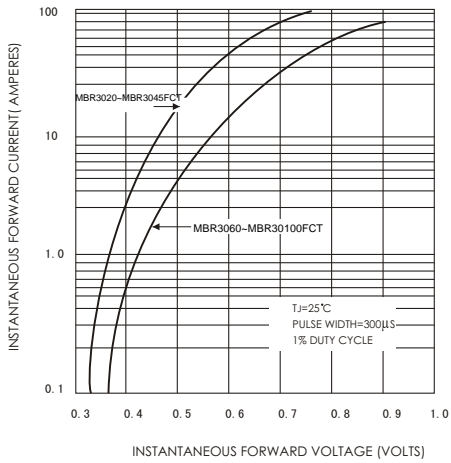
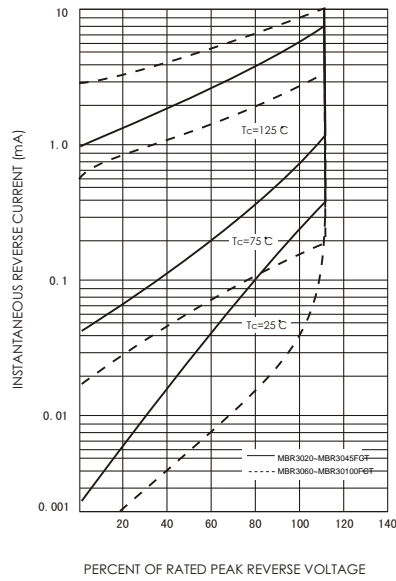


FIG.4-TYPICAL REVERSE CHARACTERISTICS





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## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;5Kpcs/Ctn

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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