



Micro Commercial Components
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MBR3020FCT THRU MBR30100FCT

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)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : type number

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

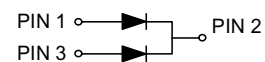
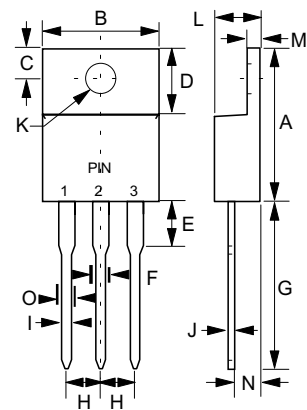
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30 A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	250A	8.3ms, half sine
Maximum Instantaneous Forward Voltage MBR3020FCT~3045FCT MBR3060FCT MBR3080FCT~30100FCT	V_F	0.60V 0.75V 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)

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

30 Amp Schottky Barrier Rectifier 20 to 100 Volts

ITO-220AB



DIMENSIONS					
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	Ø
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

RATING AND CHARACTERISTIC CURVES MBR3020FCT thru MBR30100FCT



FIG.1-FORWARD CURRENT DERATING CURVE

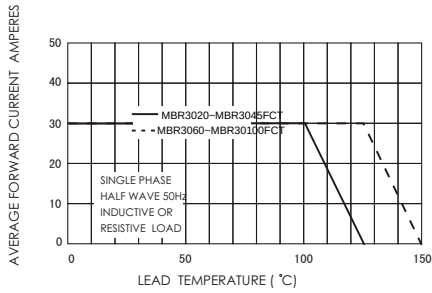


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER DIODE

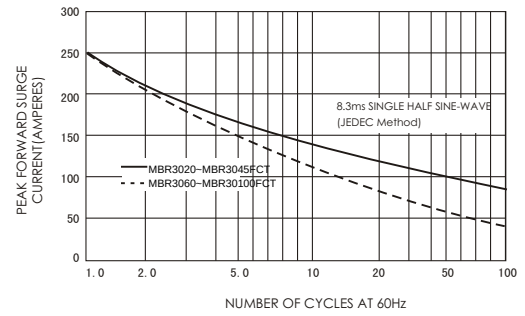


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

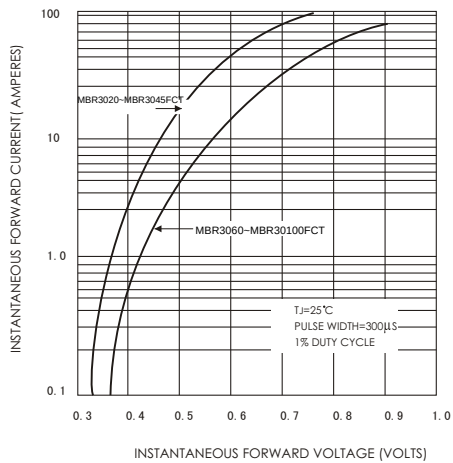


FIG.4-TYPICAL REVERSE CHARACTERISTICS

