

#### **Features**

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

# **Maximum Ratings**

- Operatiang Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance : 4°C/W Junction to Case

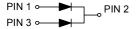
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR2020FCT	MBR2020FCT	20V	14V	20V
MBR2030FCT	MBR2030FCT	30V	21V	30V
MBR2035FCT	MBR2035FCT	35V	24.5V	35V
MBR2040FCT	MBR2040FCT	40V	28V	40V
MBR2045FCT	MBR2045FCT	45V	31.5V	45V
MBR2060FCT	MBR2060FCT	60V	42V	60V
MBR2080FCT	MBR2080FCT	80V	56V	80V
MBR20100FCT	MBR20100FCT	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

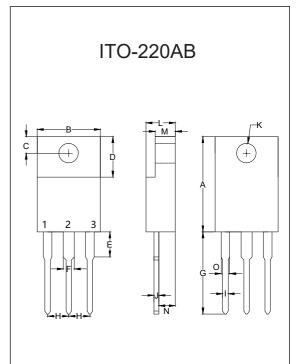
Average Forward Current	I <sub>F(AV)</sub>	20A	T <sub>A</sub> =120°C
Peak Forward Surge Current	I <sub>FSM</sub>	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage			
2020FCT-2045FCT	$V_{F}$	0.70V	I <sub>FM</sub> =10A
2060FCT 2080FCT-20100FCT		0.80V 0.85V	T <sub>J</sub> =25°C
2020FCT-2045FCT		0.84V	I <sub>FM</sub> =20A
2060FCT		0.95V 0.95V	T <sub>J</sub> =25°C
2080FCT-20100FCT			1 004
2020FCT-2045FCT 2060FCT		0.72V 0.85V	I <sub>FM</sub> =20A
2080FCT-20100FCT		0.85V	T <sub>J</sub> =125°C
Maximum DC Reverse Current at Rated DC Blocking Voltage			
2020FCT-2045FCT 2060FCT-20100FCT	I <sub>R</sub>	0.1mA 0.05mA	T <sub>J</sub> =25°C
2020FCT-2045FCT 2060FCT-20100FCT		20mA 10mA	T <sub>J</sub> =125°C

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

### **Internal Structure**



# 20 Amp Schottky Barrier Rectifier 20 to 100 Volts



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.567	0.642	14.40	16.30	
В		0.421		10.70	
С	0.085	0.128	2.15	3.25	
D	0.248	0.272	6.30	6.90	
Е		0.177		4.50	
F		0.071		1.80	
G	0.500	0.539	12.70	14.20	
Н	0.1	00	2.	55	
ı		0.035		0.90	
J		0.032		0.80	
K	0.102	0.150	2.60	3.80	Ф
L		0.201		5.10	
М		0.140		3.56	
N	0.083	0.126	2.10	3.20	
0		0.071		1.80	



# **Curve Characteristics**

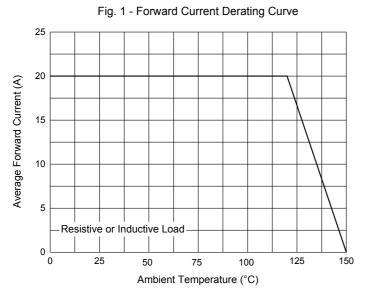


Fig. 3 - Typical Instantaneous Forward Characteristics

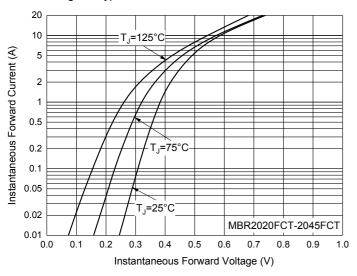


Fig. 5 - Typical Instantaneous Forward Characteristics

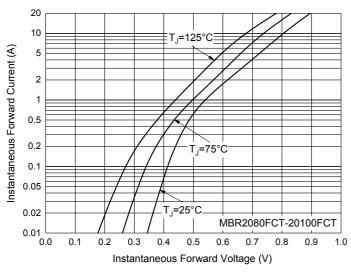


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

175
150
125
100
75

Peak Forward Surge Current (A)

25

Fig. 4 - Typical Instantaneous Forward Characteristics

Number of Cycles at 60 Hz

8.3 ms Single Half Sine-Wave

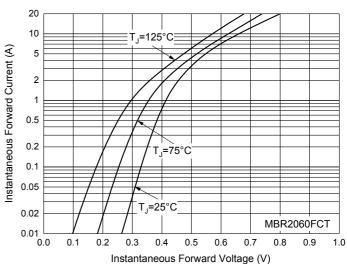
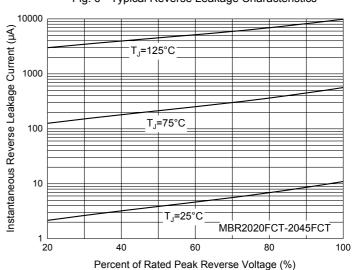


Fig. 6 - Typical Reverse Leakage Characteristics



100



# **Curve Characteristics**

Fig. 7 - Typical Reverse Leakage Characteristics

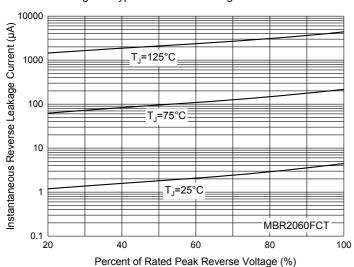
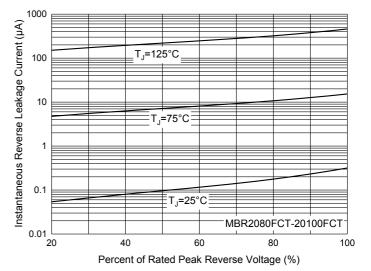


Fig. 8 - Typical Reverse Leakage Characteristics





# **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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