

## **Features**

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

# **Maximum Ratings**

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Typical Thermal Resistance : 4°C/W Junction to Case

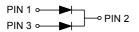
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1020FCT	MBR1020FCT	20V	14V	20V
MBR1030FCT	MBR1030FCT	30V	21V	30V
MBR1040FCT	MBR1040FCT	40V	28V	40V
MBR1045FCT	MBR1045FCT	45V	31.5V	45V
MBR1050FCT	MBR1050FCT	50V	35V	50V
MBR1060FCT	MBR1060FCT	60V	42V	60V
MBR1080FCT	MBR1080FCT	80V	56V	80V
MBR10100FCT	MBR10100FCT	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

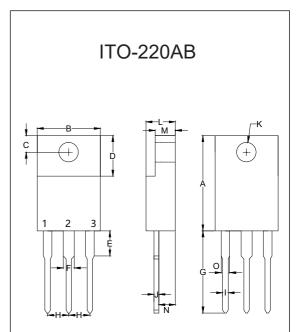
Average Forward Current	I <sub>F(AV)</sub>	10A	T <sub>C</sub> =120°C
Peak Forward Surge Current	I <sub>FSM</sub>	120A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage 1020FCT-1045FCT 1050FCT-1060FCT 1080FCT-10100FCT	V <sub>F</sub>	0.7V 0.75V 0.85V	I <sub>FM</sub> =5A T <sub>J</sub> =25°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1mA 10mA	T <sub>J</sub> =25°C; T <sub>J</sub> =100°C

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

### **Internal Structure**



# 10 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	2.5	55	
I		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**

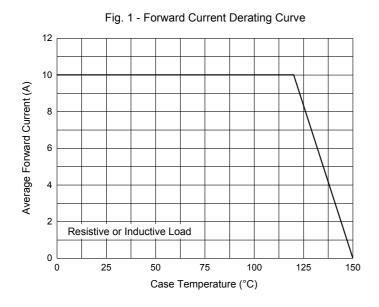


Fig. 3 - Typical Instantaneous Forward Characteristics

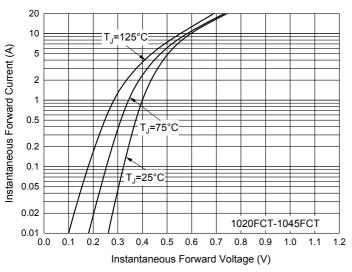
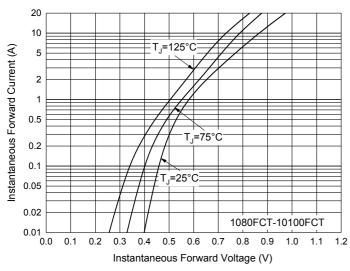


Fig. 5 - Typical Instantaneous Forward Characteristics



Current 140

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge

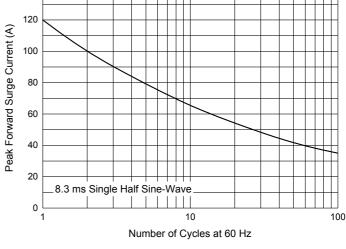


Fig. 4 - Typical Instantaneous Forward Characteristics

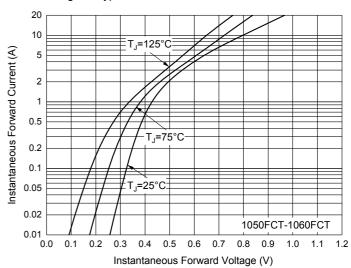
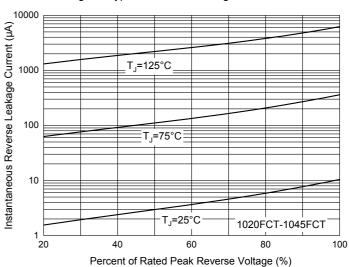


Fig. 6 - Typical Reverse Leakage Characteristics





## **Curve Characteristics**

Fig. 7 - Typical Reverse Leakage Characteristics

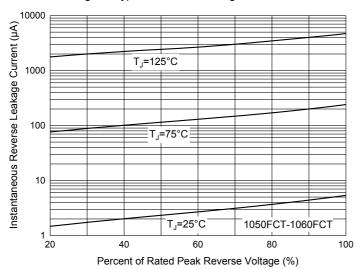
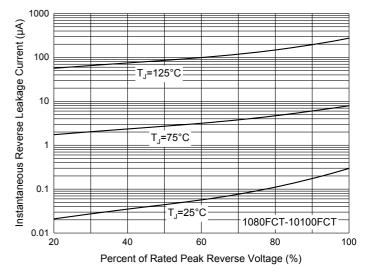


Fig. 8 - Typical Reverse Leakage Characteristics



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## **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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