

**Micro Commercial Components** 

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# MBR1620FCT THRU MBR16100FCT

# 16 Amp Schottky Rectifier 20-100 Volts

### Features

- High Surge Capability
- Low Forward Voltage Drop
- Marking: type number
- Low Power Loss, High Efficiency
- 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

# **Maximum Ratings**

- Operating Temperature: -50°C to +125°C
  Storage Temperature: -50°C to +125°C
- Maximum Thermal Resistance: R<sub>θJC</sub> = 2.0°C/W

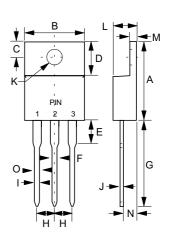
MCC	Maximum Recurrent	Maximum	Maximum DC Blocking Voltage
Part Number	Peak	RMS	Dissiming voltage
	Reverse	Voltage	
	Voltage		
MBR1620FCT	20V	14V	20V
MBR1630FCT	30V	21V	30V
MBR1640FCT	40V	28V	40V
MBR1650FCT	50V	35V	50V
MBR1660FCT	60V	42V	60V
MBR1680FCT	80V	56V	80V
MBR16100FCT	100V	70V	100V

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

Average Forward Current	$I_{F(AV)}$	16 A	T <sub>C</sub> = 90 °C
Peak Forward Surge	I <sub>FSM</sub>	150A	8.3ms, half sine
Current			
Maximum Instantaneous			
Forward Voltage			
MBR1620FCT-1640FCT		.55V	
MBR1650FCT-1660FCT	$V_{F}$	.75V	$I_{FM} = 8.0A$ per leg
MBR1680FCT16100FCT		.85V	
Maximum DC Reverse			
Current At Rated DC	$I_R$	0.5mA	T <sub>C</sub> = 25°C
Blocking Voltage		100mA	T <sub>C</sub> = 100°C

 ${\bf Notes: 1. High\ Temperature\ Solder\ Exemption\ Applied,\ see\ EU\ Directive\ Annex\ 7.}$ 

# **ITO-220AB**





DIMENSIONS					
	INCHES		M		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.583	.642	14.80	16.30	
В		.406		10.30	
С	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
Е		.161		4.10	
F		.071		1.80	
G	.512	.543	13.00	13.80	
Н	.100		2.55		
- 1		.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	
0		.055		1.40	

#### MBR1620FCT thru MBR16100FCT



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1.0

Figure 1 Typical Reverse Characteristics

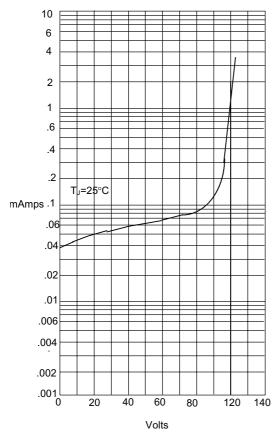


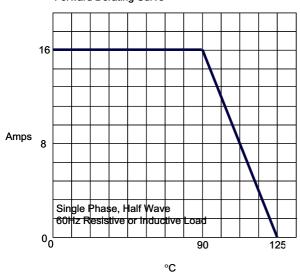
Fig. 2-TYPICAL INSTNATANEOUS FORWARD CHARACTERISTIC INSTANTANEOUS FORWARD CURRENT AMPERES 20. 30. 40V 50. 60V 80. 100V 1.0 --T <sub>1</sub> = 25

INSTANTANEOUS FORWARD CHARACTERISTIC

PULSE WIDTH = 200

Instantaneous Reverse Leakage Current - MicroAmperewersus Percent Of Rated Peak Reverse Voltage - Volts

Figure 3 Forward Derating Curve



Peak Forward Surge Current 150 125 100 75 Amps 50 25 0 8 10 20 60 80 100 2 4 6 40 Cycles

Figure 4

Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

Average Forward Rectified Current - Amperes versus Ambient Temperature -°C



### **Ordering Information**

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

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