



## Features

- High Surge Capacity
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Marking : type number
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

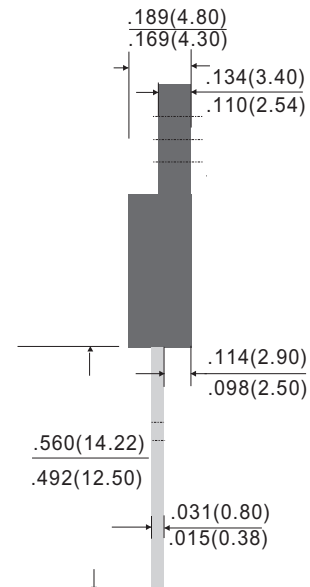
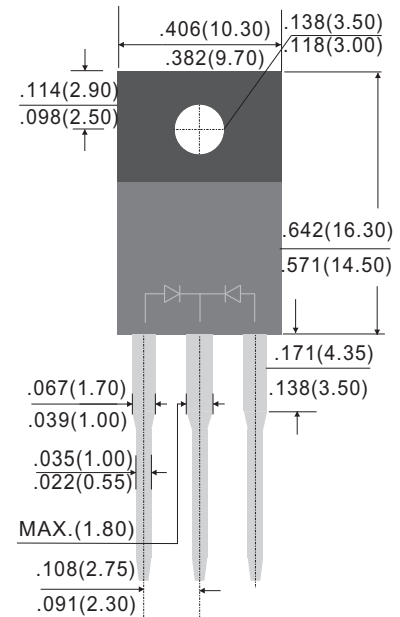
Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR2040FCT	40V	28V	40V
MBR2045FCT	45V	31.5V	45V
MBR2060FCT	60V	42V	60V
MBR20100FCT	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	20 A	$T_A = 120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$		
2040FCT-2045FCT		.70V	$I_{FM} = 10A;$ $T_A = 25^\circ\text{C}$
2060FCT		.80V	
20100FCT		.85V	$I_{FM} = 20A;$ $T_A = 25^\circ\text{C}$
2040FCT-2045FCT		.84V	
2060FCT		.95V	
20100FCT		.95V	$I_{FM} = 20A;$ $T_A = 125^\circ\text{C}$
2040FCT-2045FCT	.72V		
2060FCT	.85V		
20100FCT	.85V		
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$		
2040FCT~2045FCT		0.1mA	$T_A = 25^\circ\text{C}$
2060FCT~20100FCT		0.15mA	$T_A = 125^\circ\text{C}$
2040FCT~2045FCT		50mA	
2060FCT~20100FCT	150mA		

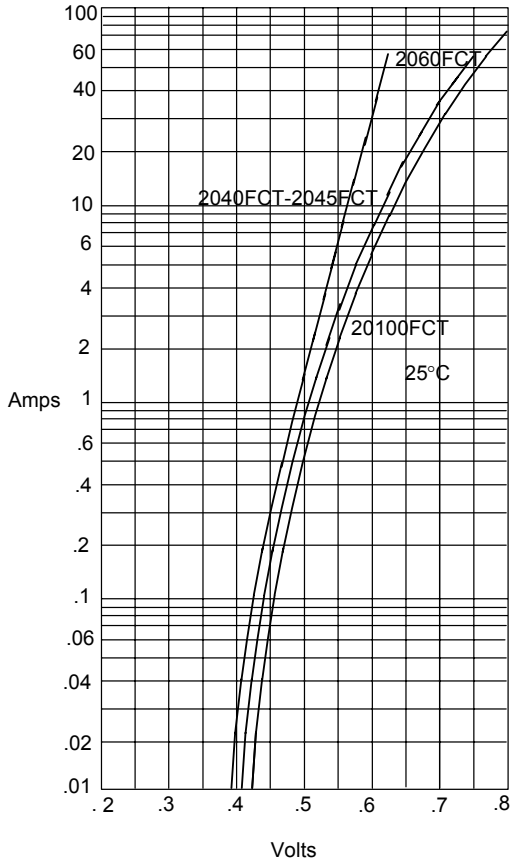
Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

## ITO-220



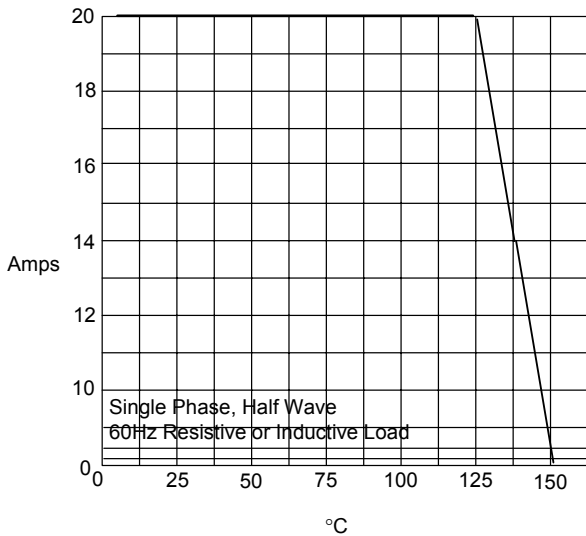
Dimensions in inches and (millimeters)

Figure 1  
Typical Forward Characteristics



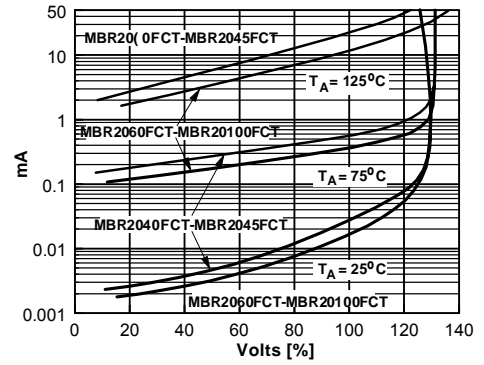
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 3  
Forward Derating Curve



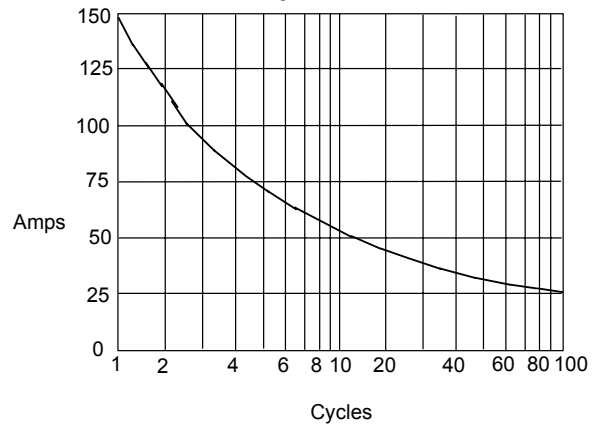
Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 2  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - mAmpere  
Percent Of Rated Peak Reverse Voltage - Volts%

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles