

### Features

- High efficiency operation
- Guard ring for enhanced ruggedness and long term reliability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Solder dip maximum peak of 275 °C /7s, per JESD 22-B106

### Typical Application

For use in switching power supplies, converters, freewheeling diodes and reverse battery protection.

### Mechanical Data

- Package: TO-220AC  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color Band denotes cathode end



### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	MBR20		
				100	150	200
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		100	150	200
Average Rectified Output Current	$I_o$	A	60HZ Half-sine wave, Resistance load, Tc(Fig.1)	20		
Surge(Nonrepetitive)Forward Current	$I_{FSM}$	A	60HZ sine wave, 1 cycle, Ta=25°C	150		
Storage Temperature	$T_{stg}$	°C		-55 ~ +150		
Junction Temperature	$T_j$	°C		-55 ~ +150		

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

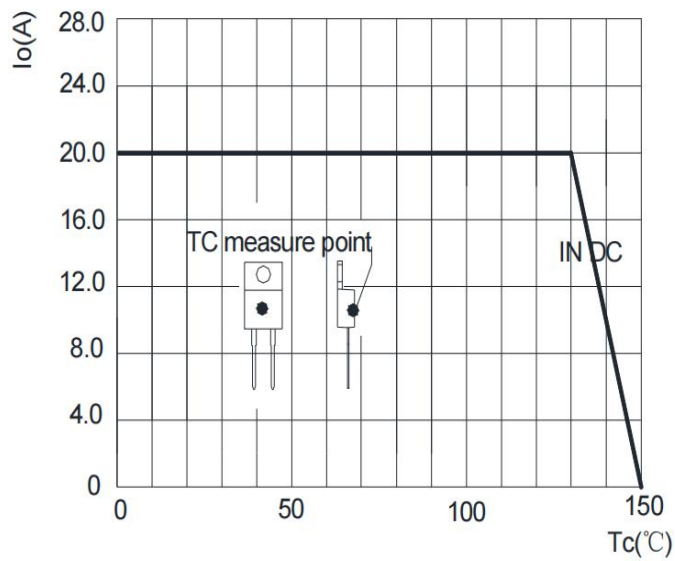
PARAMETER	Symbol	Unit	Conditions	MBR20		
				100	150	200
Peak Forward Voltage	$V_{FM}$	V	$I_{FM}=20A$	0.9	0.95	0.95
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	Ta=25°C		
	$I_{RRM2}$			Ta=125°C		
Thermal Resistance	$R_{\theta J-C}$	°C/W	Between junction and case	2.0 <sup>1)</sup>		

### NOTES:

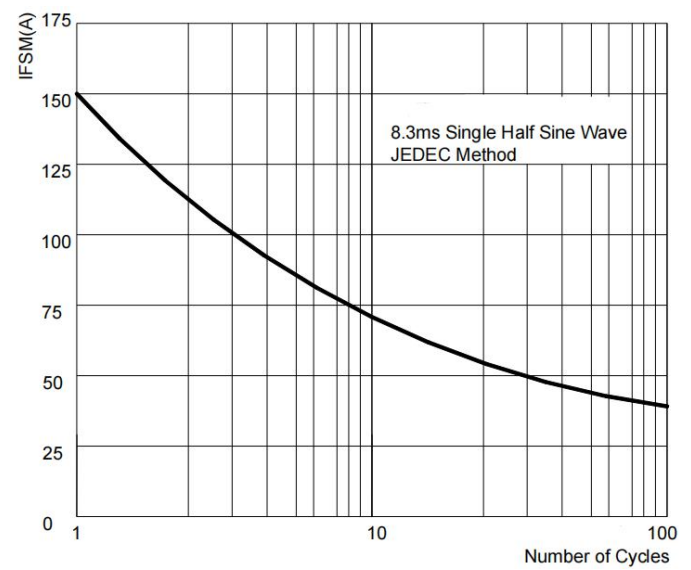
Thermal resistance from junction to case per leg

### Characteristics (Typical)

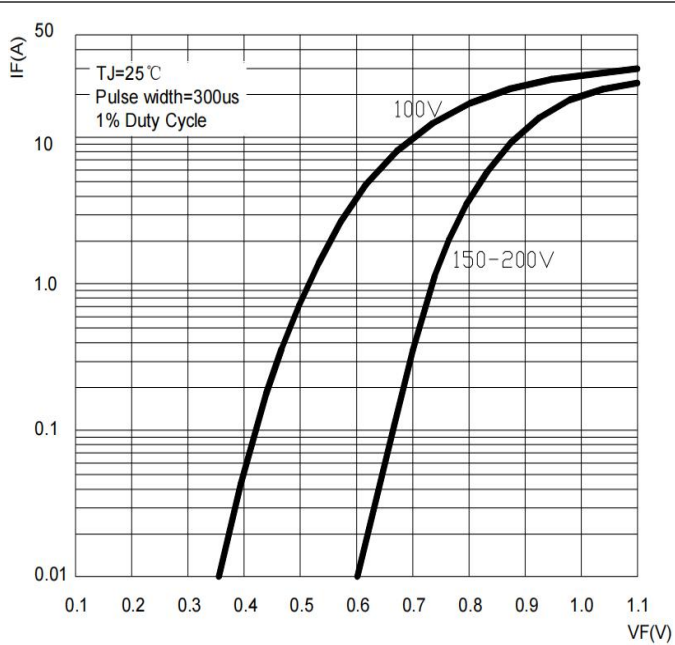
**FIG1: Forward Current Derating Curve**



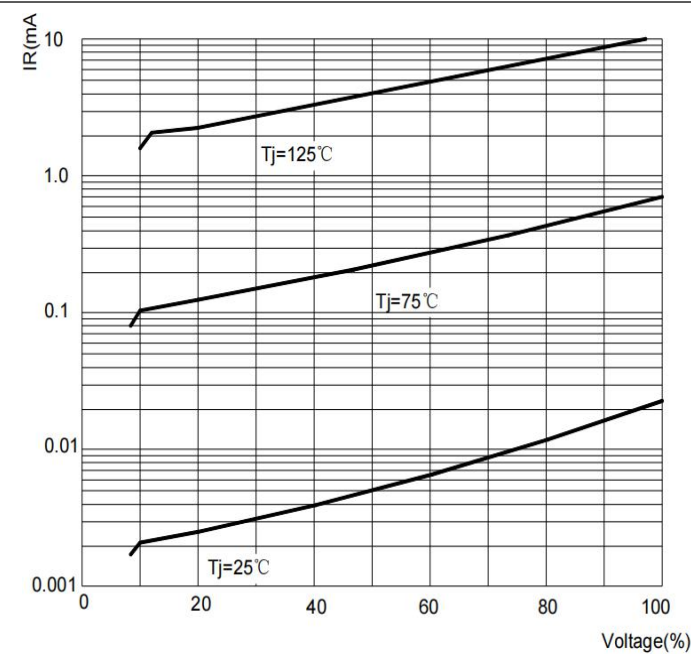
**FIG2: Maximum Non-Repetitive Forward Surge Current**



**FIG3: Typical Forward Characteristics**



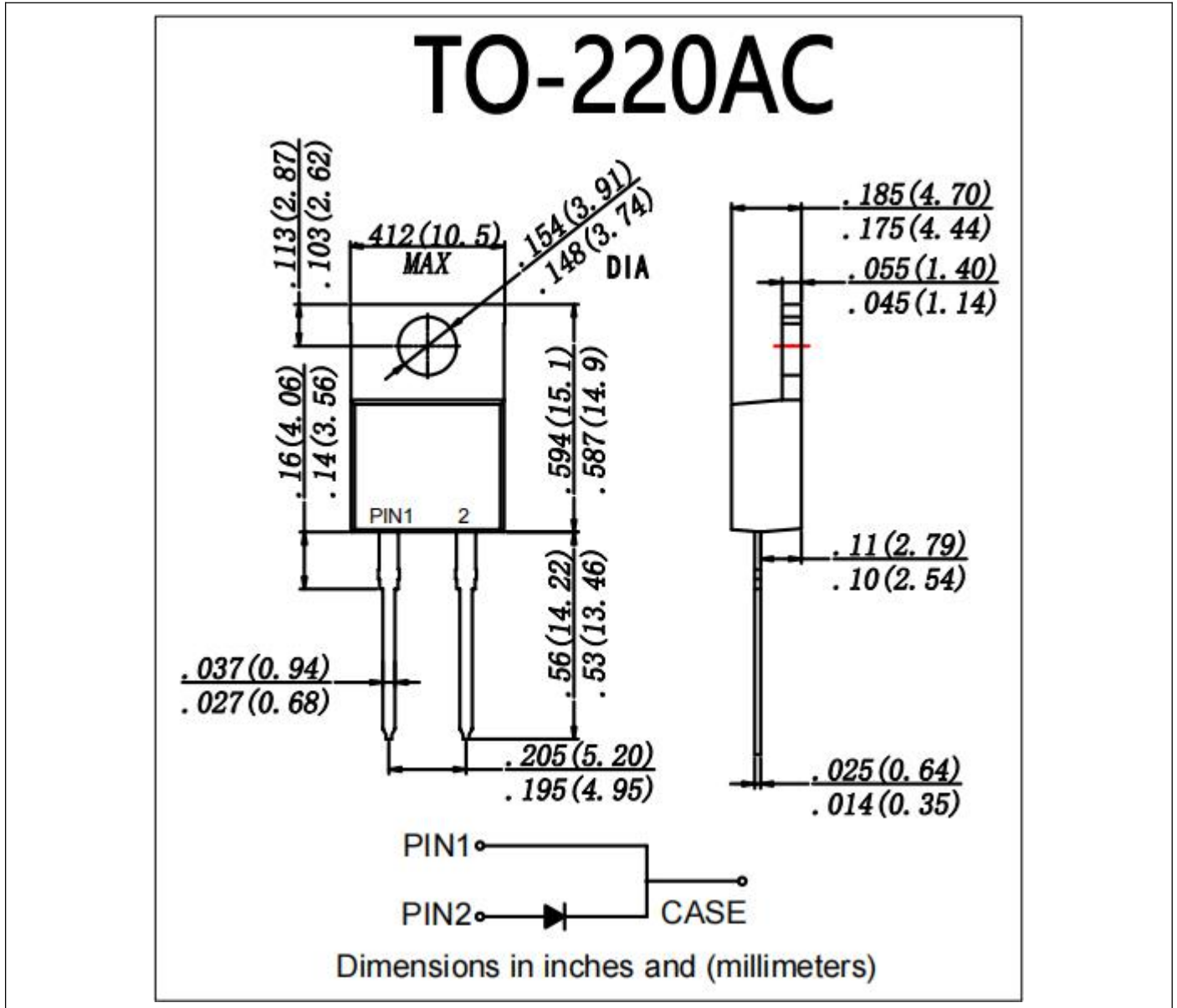
**FIG4: Typical Reverse Characteristics**



### Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR20100 ~ MBR20200	TO-220AC	50	1000	5000	Tube

### Outline Dimensions



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