

Features

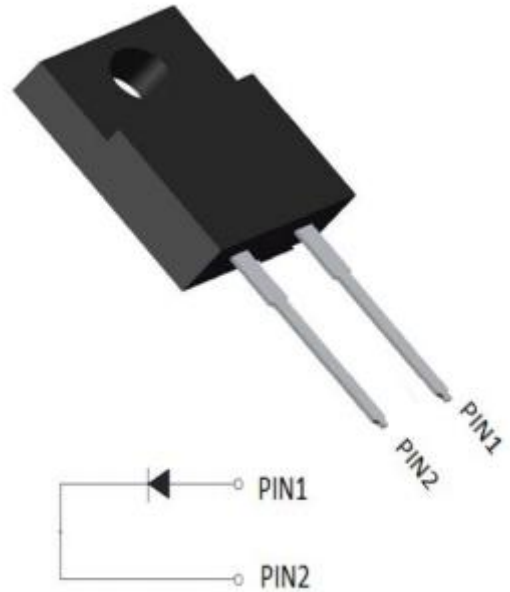
- High efficiency operation
- Guard ring for enhanced ruggedness and long term reliability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Solder dip maximum peak of 275 °C /7s, per JESD 22-B106

Typical Application

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

Mechanical Data

- Package: ITO-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-F						
				35	45	50	60	90	100	150
Repetitive Peak Reverse Voltage	V_{RRM}	V		35	45	50	60	90	100	150
Average Rectified Output Current	I_o	A	60HZ Half-sine wave, Resistance load, Tc(Fig.1)	20.0						
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-F						
				35	45	50	60	90	100	150
Peak Forward Voltage	V_{FM}	V	$I_{FM}=20.0A$	0.75		0.85		0.95		1.02
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	0.2						
	I_{RRM2}			15		10		5.0		
Thermal Resistance	$R_{\theta J-C}$	$R_{\theta J-C}$	Between junction and case	3.0 ¹⁾						

NOTES:

¹⁾Thermal resistance from junction to case per leg with heat-sink size of 2"x3"x0.25"A-L plate

■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

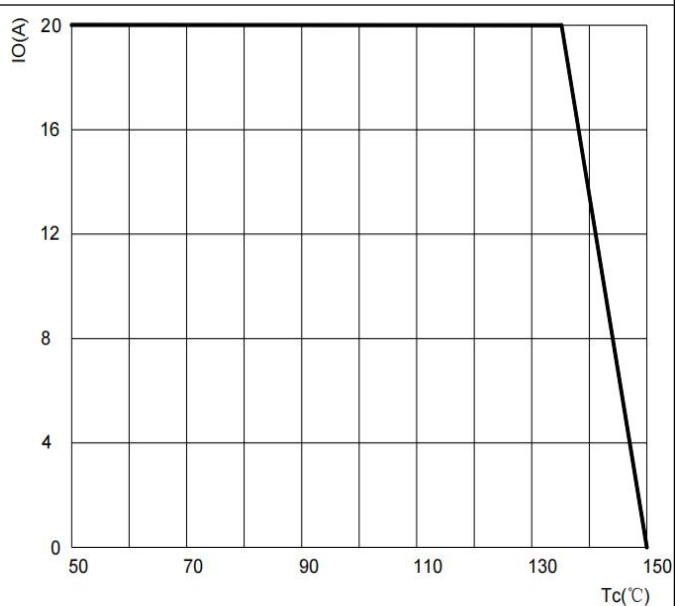


FIG2: Maximum Non-Repetitive Forward Surge Current

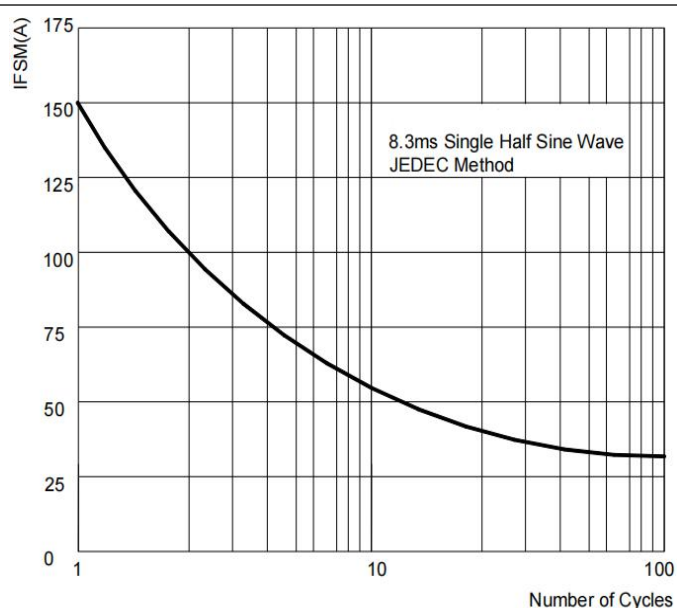


FIG3: Typical Forward Characteristics

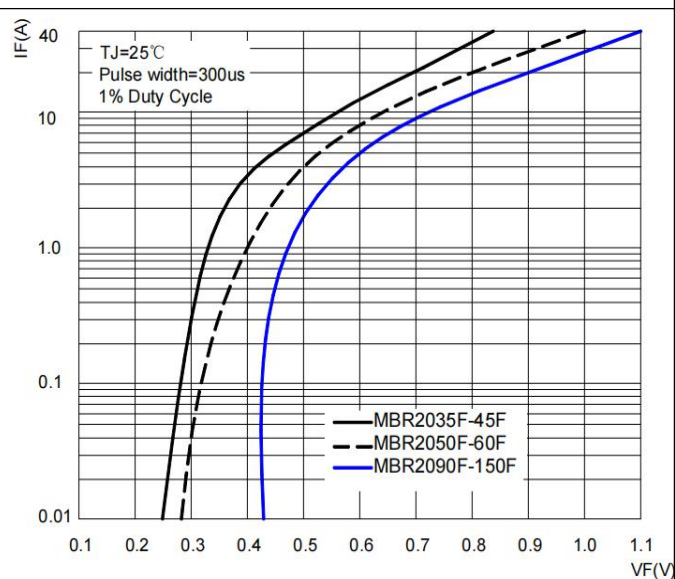
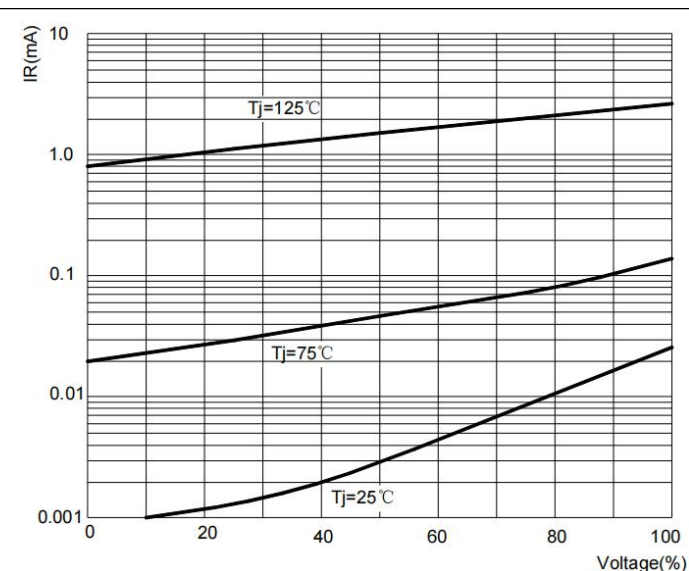


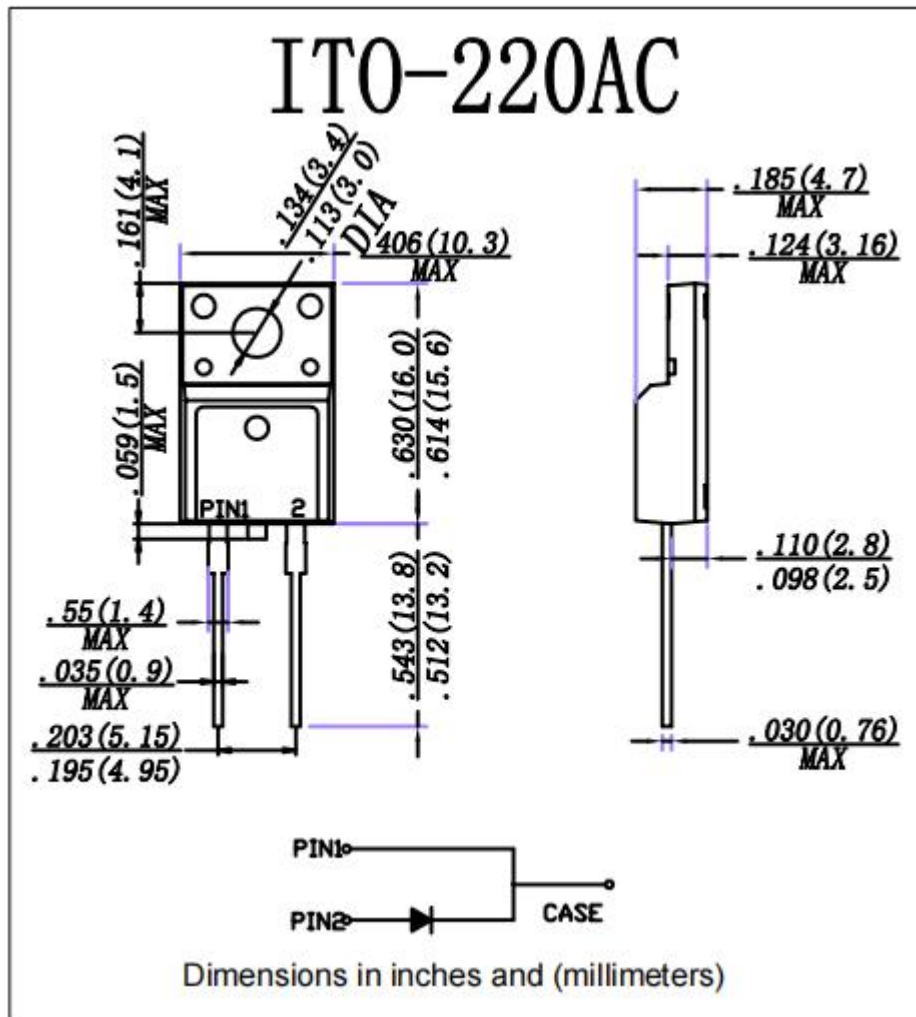
FIG4: Typical Reverse Characteristics



Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR2035F ~ MBR20150F	ITO-220AC	50	1000	5000	Tube

Outline Dimensions



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