

# MBR10100CT THRU MBR10200CT

## Schottky Diodes

### Features

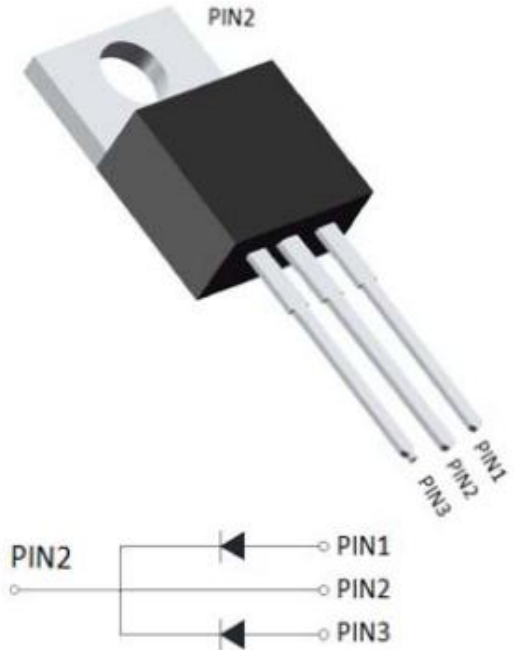
- High efficiency operation
- Guard ring for enhanced ruggedness and long term reliability
- High purity,high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Solder dip maximum peak of 275 °C /7s, per JESD 22-B106

### Typical Application

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

### Mechanical Data

- Package: TO-220AB  
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	MBR		
				10100CT	10150CT	10200CT
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)	10		
Surge(Nonrepetitive)Forward Current	$I_{FSM}$	A	60HZ sine wave, 1 cycle, Ta=25°C	100		
Current Squared Time	$I^2T$	A <sup>2</sup> S	1ms≤t < 8.3ms Tj =25°C,Rating of per diode	41		
Storage Temperature	$T_{stg}$	°C		-55 ~ +150		
Junction Temperature	$T_j$	°C	IN DC Forward Mode-Forward Operations, without reverse bias, t ≤1 h (Fig. 1)①	-55 ~ +150		

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

PARAMETER	Symbol	Unit	Conditions	MAX MBR		
				10100CT	10150CT	10200CT
Peak Forward Voltage	$V_{FM}$	V	$I_{FM}=5.0A$	0.85	0.9	0.95
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	Ta=25°C		
	$I_{RRM2}$			Ta=100°C		
Thermal Resistance	$R_{\theta J-C}$	°C/W	Between junction and case	2.0		

#### NOTES:

Meets the requirement of IEC 61215 Ed.2 bypass diode thermal test



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■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

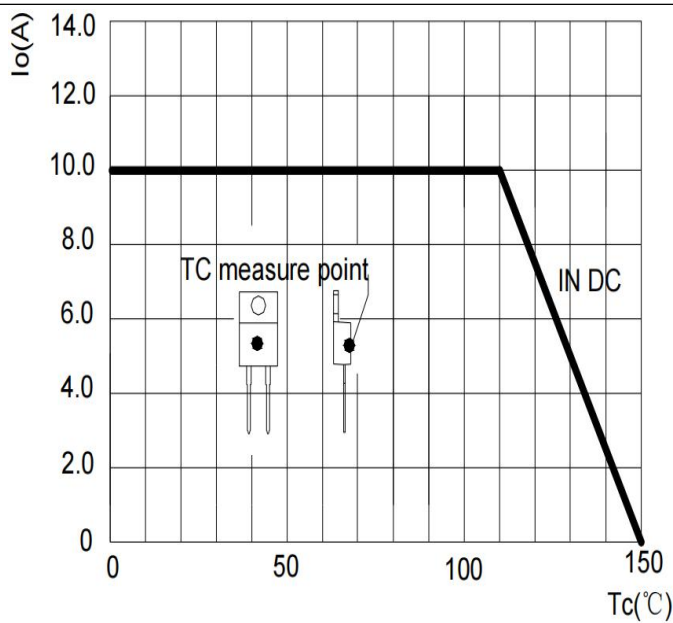


FIG2: Surge Forward Current Capability

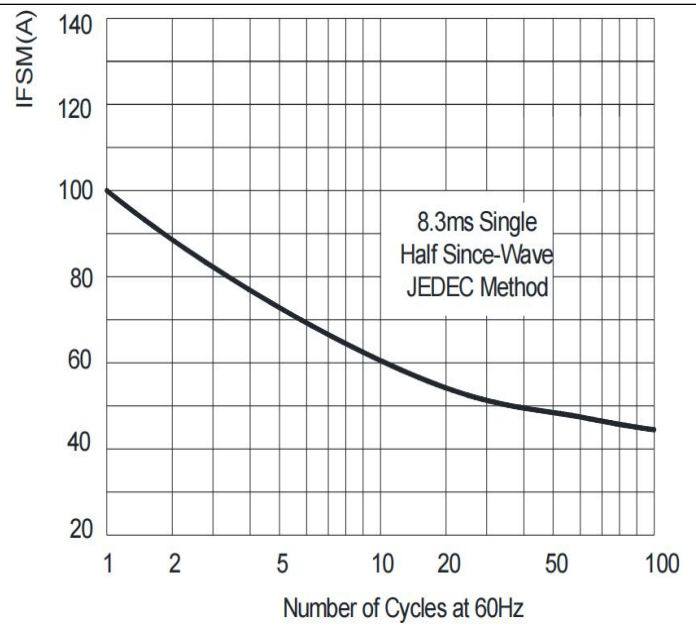


FIG3: Instantaneous Forward Voltage

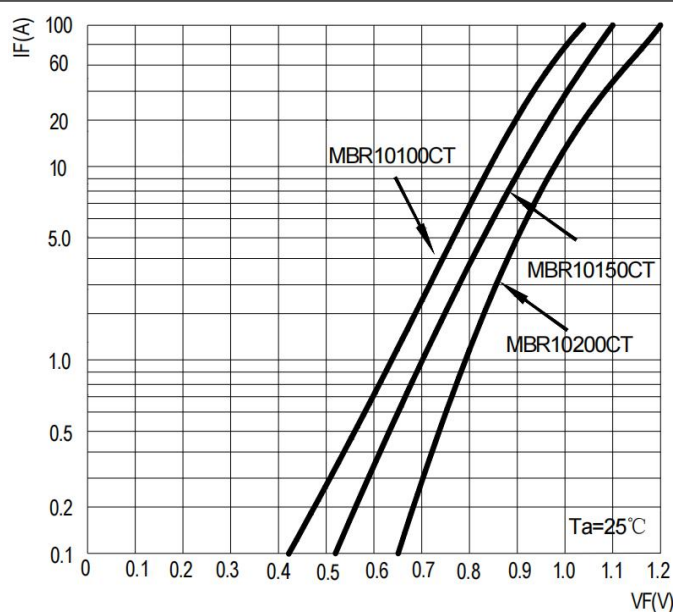
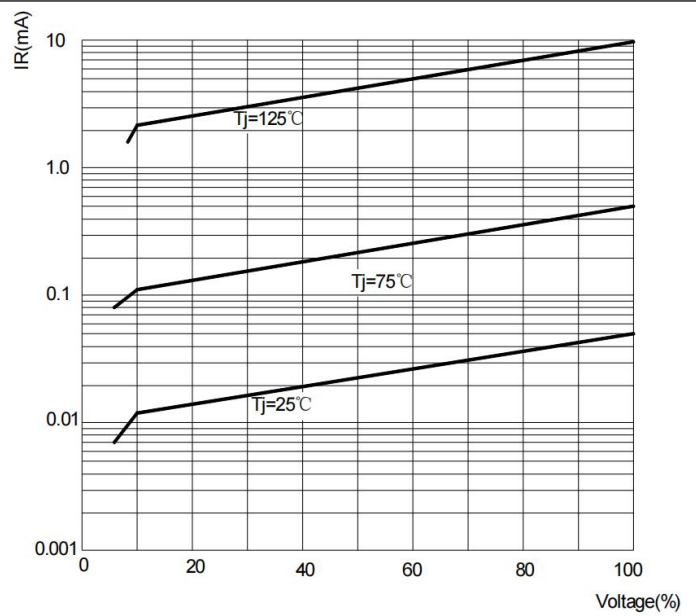


FIG4: Typical Reverse Characteristics



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Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR10100CT ~ MBR10200CT	TO-220AB	50	1000	5000	Tube

Outline Dimensions

