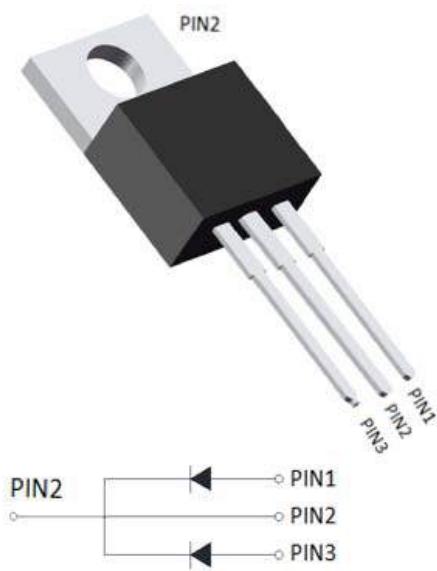




## Schottky Diodes



### Features

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

### Typical Applications

Typical applications are 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:** As marked

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

PARAMETER	SYMBOL	UNIT	MBR20100CT	MBR20150CT	MBR20200CT
Device marking code			MBR20100CT	MBR20150CT	MBR20200CT
Repetitive Peak Reverse Voltage	VRRM	V	100	150	200
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25°C	IO	A		20	
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25°C	IFSM	A		150	
Current Squared Time @1ms≤t<8.3ms Tj=25°C,	I <sup>2</sup> t	A <sup>2</sup> s		94	
Storage Temperature	T <sub>stg</sub>	°C		-55 ~ +175	
Junction Temperature	T <sub>j</sub>	°C		-55 ~ +175	

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR20100CT	MBR20150CT	MBR20200CT
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=10.0A	0.8	0.85	0.9
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM Ta=25°C		0.1	
	IRRM2		VRM=VRRM Ta=125°C		20	



# MBR20100CT THRU MBR20200CT

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

PARAMETER		SYMBOL	UNIT	MBR20100CT	MBR20150CT	MBR20200CT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	°C/W	2.0		

## ■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR20100CT THRU MBR20200CT	Approximate 1.9	50	1000	5000	Tube

## ■ Characteristics (Typical)

FIG1:Io -Tc Curve

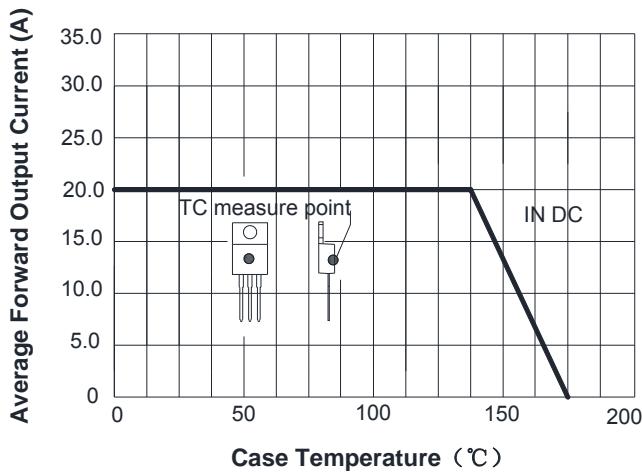


FIG2: Surge Forward Current Capability

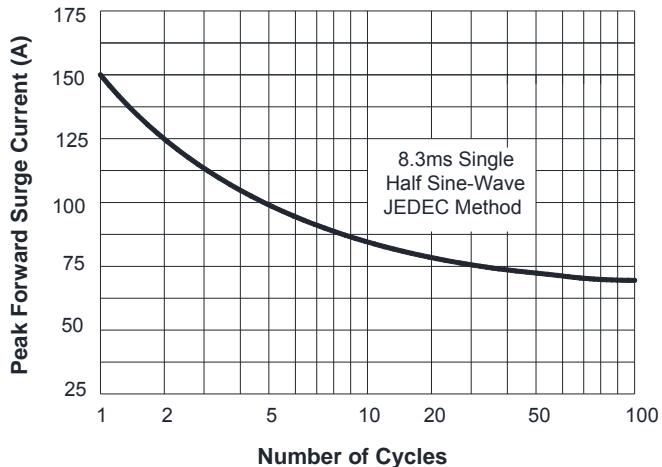


FIG3: Forward Voltage

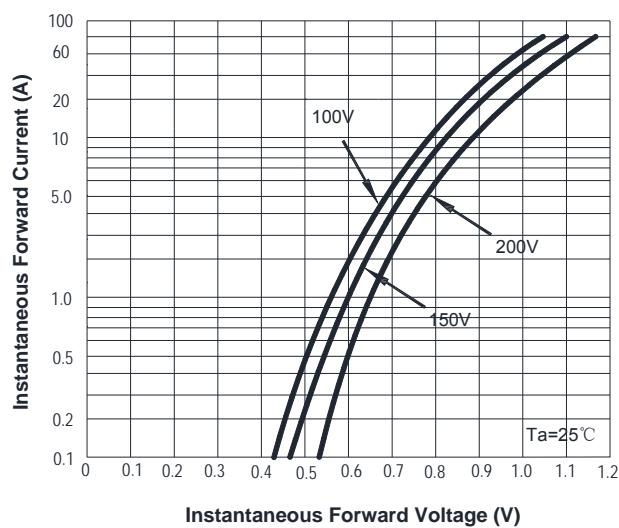
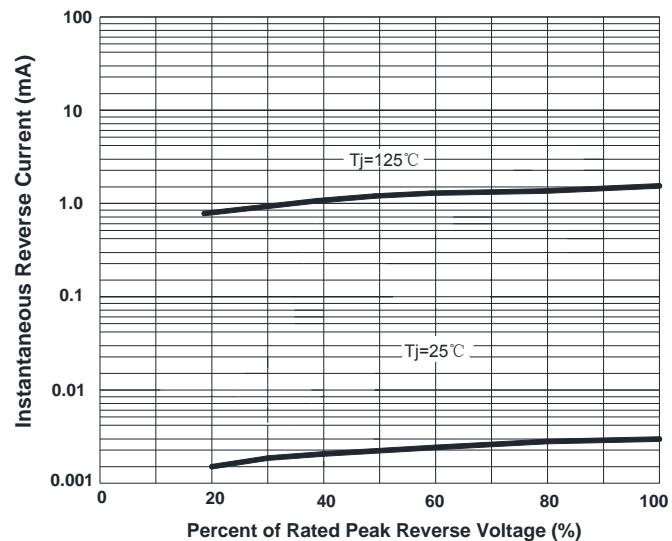
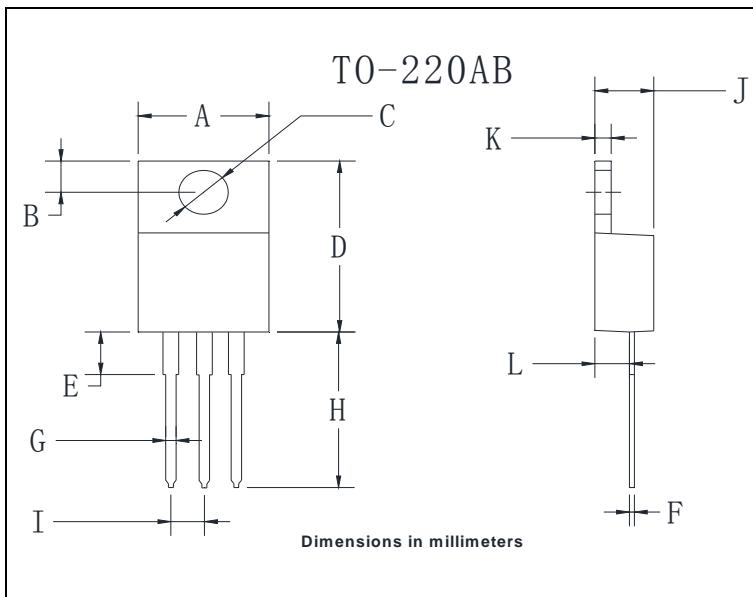


FIG4: Instantaneous Reverse Characteristics





## ■Outline Dimensions



TO-220AB		
Dim	Min	Max
A	9.5	10.9
B	2.22	3.27
C	3.34	4.31
D	14.5	15.5
E	3.16	4.46
F	0.28	0.64
G	0.68	0.94
H	13.06	14.62
I	2.01	3.07
J	4.04	5.1
K	1.14	1.4
L	2.14	3.19



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