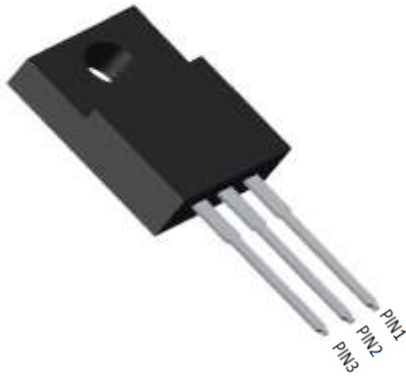




## Schottky Diodes



### Features

- High frequency operation
- Low forward voltage drop
- 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:** ITO-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 (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR10100FCT	MBR10150FCT	MBR10200FCT
Device marking code			MBR10100FCT	MBR10150FCT	MBR10200FCT
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	100	150	200
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>c</sub> (FIG.1)	I <sub>o</sub>	A	10		
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	120		
Current Squared Time @1ms≤t<8.3ms T <sub>j</sub> =25°C,	I <sup>2</sup> t	A <sup>2</sup> s	60		
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +175		
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +175		

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR10100FCT	MBR10150FCT	MBR10200FCT
Maximum instantaneous forward voltage drop per diode	V <sub>FM</sub>	V	I <sub>FM</sub> =5.0A	0.8	0.85	0.9
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	mA	V <sub>RM</sub> =V <sub>RRM</sub> T <sub>a</sub> =25°C	0.1		
	I <sub>RRM2</sub>		V <sub>RM</sub> =V <sub>RRM</sub> T <sub>a</sub> =125°C	20		

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

### ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR10100FCT	MBR10150FCT	MBR10200FCT
Thermal Resistance Between junction and case	R <sub>θJ-C</sub>	°C/W	4.0		



# MBR10100FCT THRU MBR10200FCT-B1-W5094HF

## Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR1080FCT THRU MBR10200FCT	Approximate 1.6	50	1000	5000	Tube

## Characteristics (Typical)

FIG1:  $I_o$  -  $T_c$  Curve

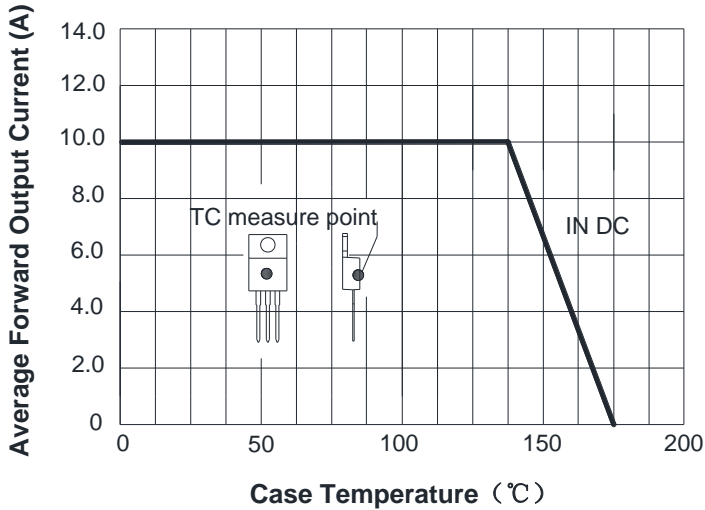


FIG2: Surge Forward Current Capability

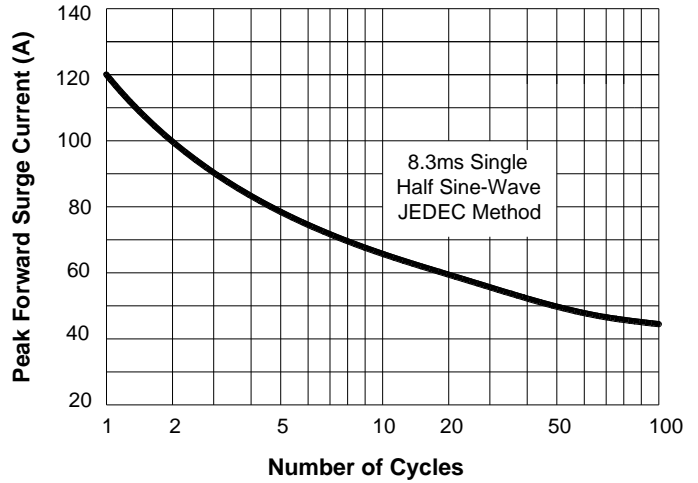


FIG3: Forward Voltage

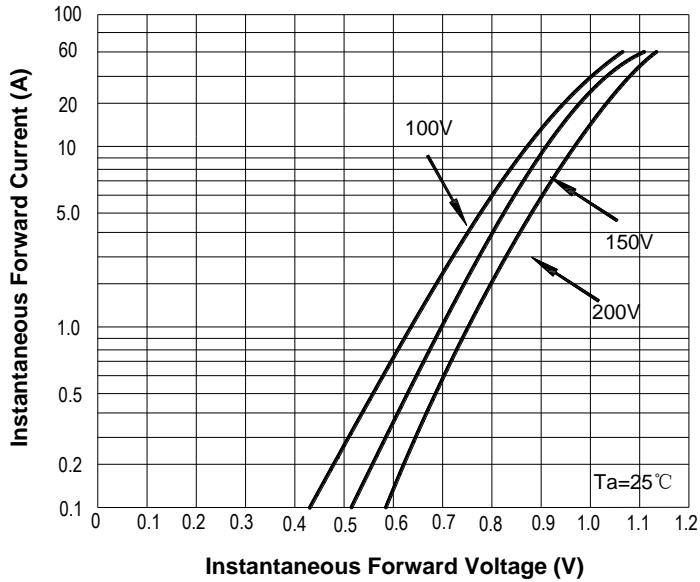
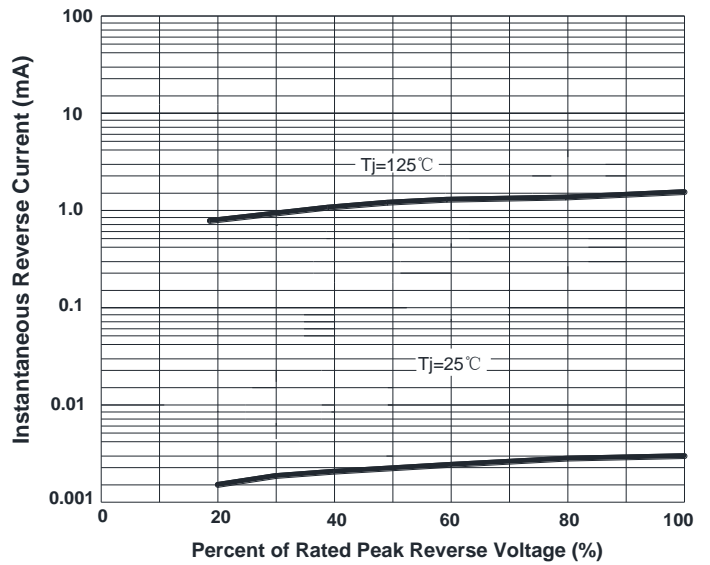
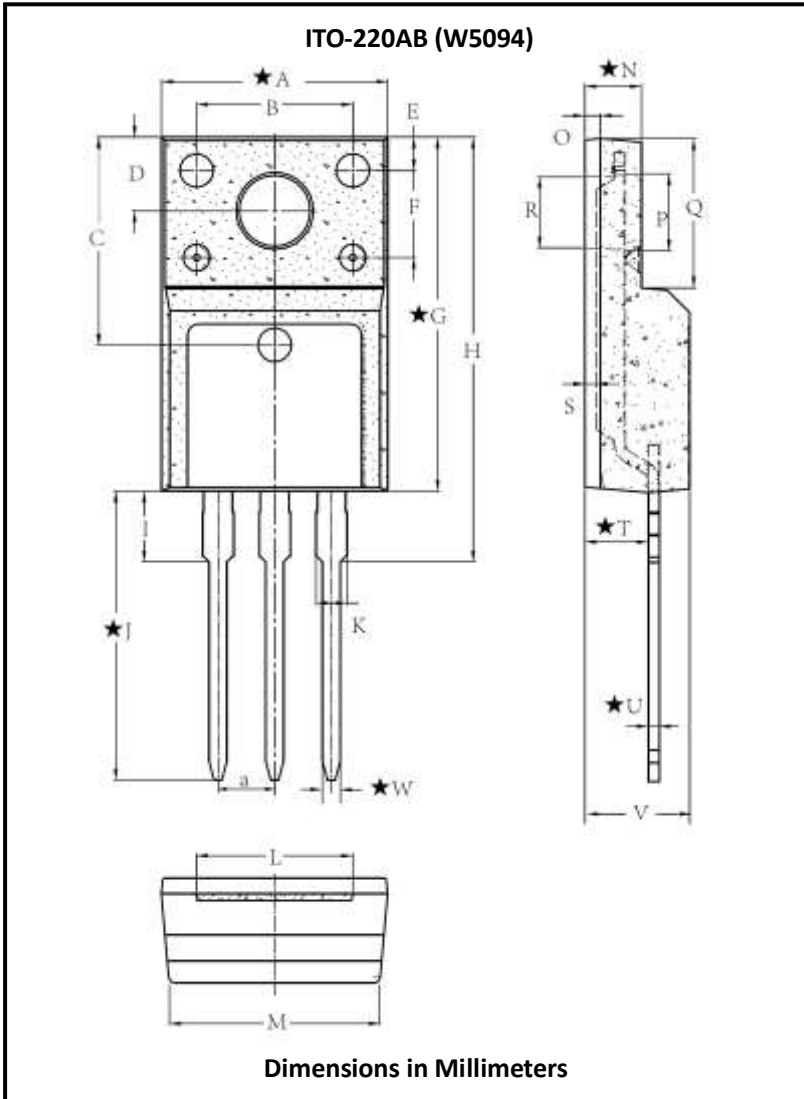


FIG4: Instantaneous Reverse Characteristics





## ■Outline Dimensions



ITO-220AB (W5094)		
Dim	Min	Max
A	10.03	10.23
B	6.90	7.10
C	9.21	9.41
D	3.20	3.40
E	1.40	4.00
F	3.8	0.75
G	15.72	16.02
H	TYP 19.05	
I	TYP 3.18	
J	12.65	13.25
K	1.30	1.50
L	6.50	7.50
M	9.23	9.63
N	2.44	2.64
O	TYP 0.7	
P	3.35	3.55
Q	6.58	6.78
R	3.08	3.28
S	TYP 0.52	
T	2.75	2.95
U	0.40	0.60
V	4.50	4.90
W	0.71	0.91
a	TYP 2.54	



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