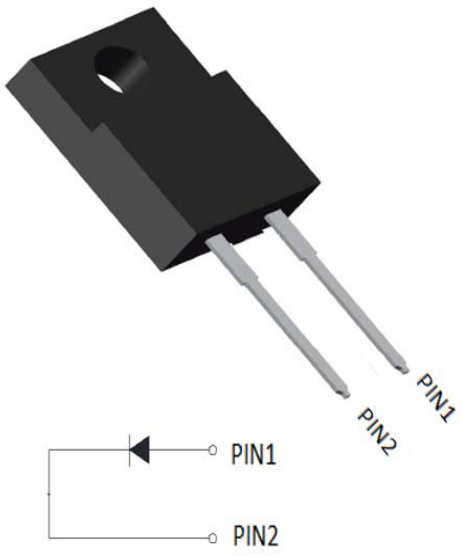
Schottky Diodes



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-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**: As marked

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR1080F	MBR10100F	MBR10120F	MBR10150F	MBR10200F
Device marking code			MBR1080F	MBR10100F	MBR10120F	MBR10150F	MBR10200F
Repetitive Peak Reverse Voltage	V_{RRM}	V	80	100	120	150	200
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25℃	I_O	A	10				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Ta=25℃	I_{FSM}	A	150				
Current Squared Time @1ms≤t≤8.3ms Tj=25℃,	I^2t	A^2s	94				
Storage Temperature	T_{stg}	℃	-55 ~ +150				
Junction Temperature	Tj	℃	-55 ~ +150				

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR1080F	MBR10100F	MBR10120F	MBR10150F	MBR10200F
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=10.0A	0.85		0.9		0.95
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	$V_{RM}=V_{RRM}$ Ta=25℃	0.1				
	I_{RRM2}		$V_{RM}=V_{RRM}$ Ta=100℃	20				

■Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBR1080F	MBR10100F	MBR10120F	MBR10150F	MBR10200F
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	4.0				

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR1080F THRU MBR10200F	Approximate 1.5	50	1000	5000	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

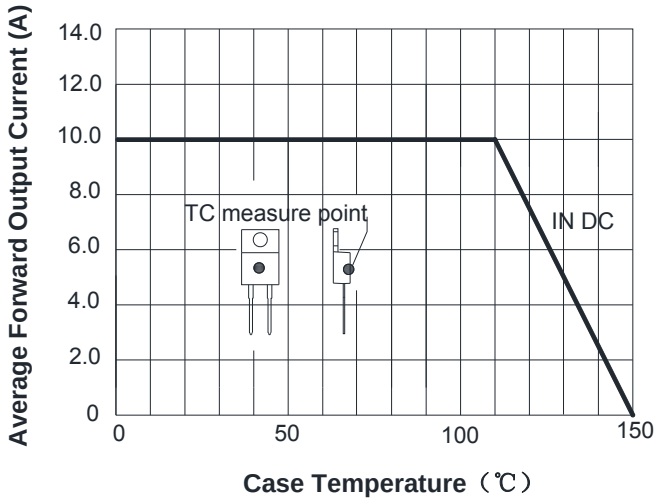


FIG2:Surge Forward Current Capability

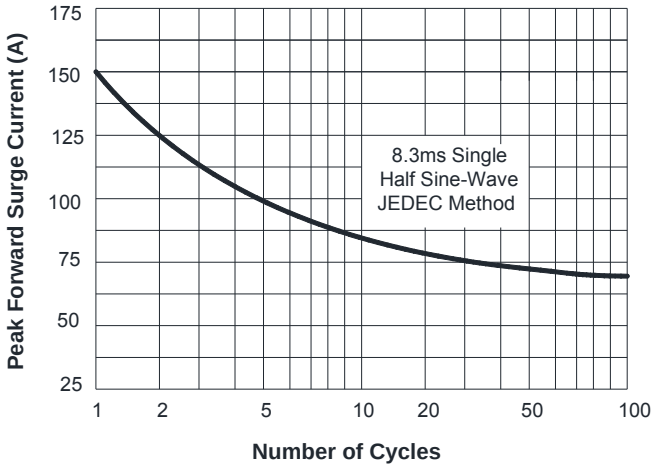


FIG3: Forward Voltage

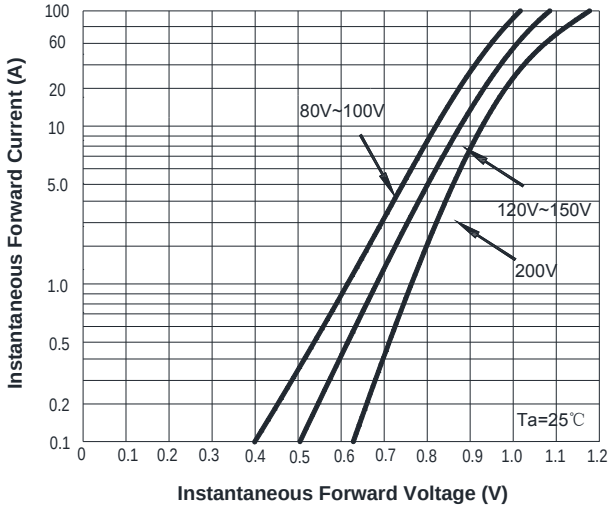
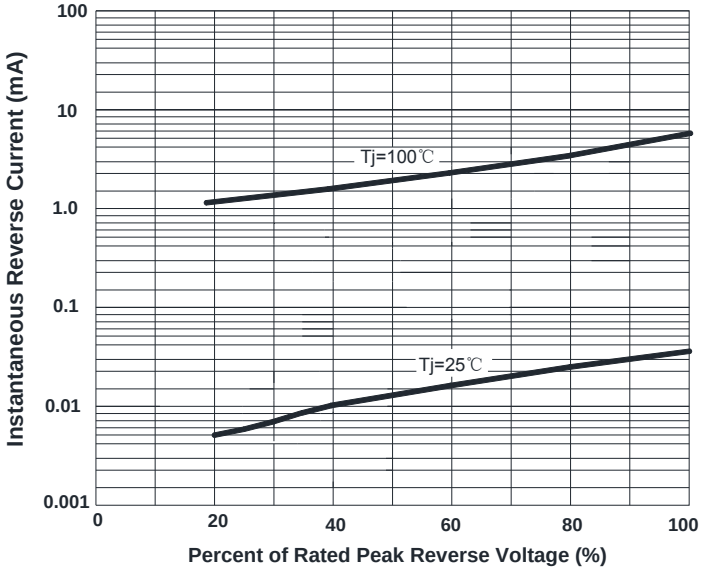
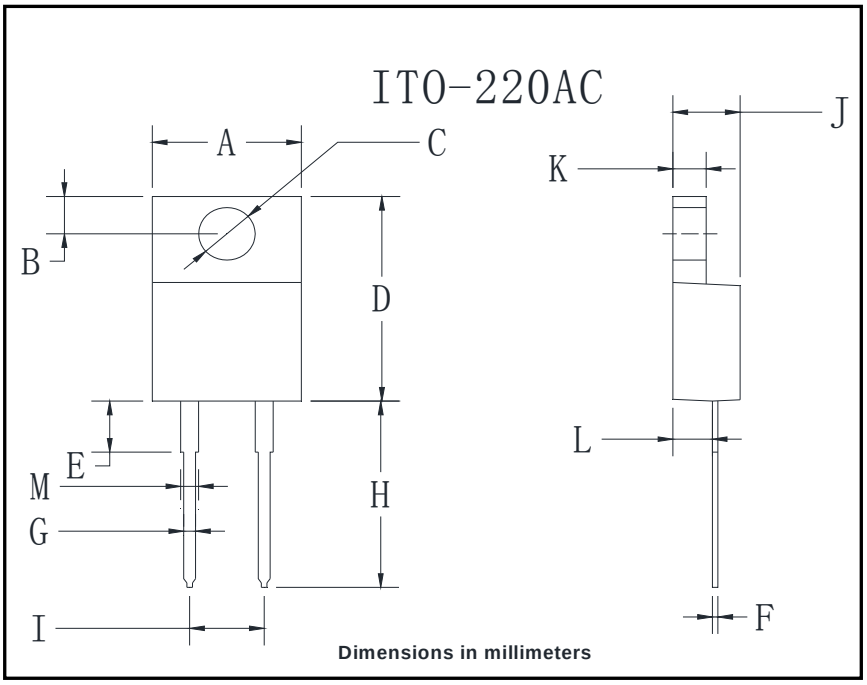


FIG.4: Typical Reverse Characteristics



■Outline Dimensions



ITO-220AC		
Dim	Min	Max
A	9.7	10.7
B	2.15	3.25
C	2.6	3.8
D	14.4	15.9
E	3.1	4.5
F	0.4	0.8
G	0.4	0.9
H	12.7	14.2
I	3.6	5.9
J	3.9	5.1
K	2.1	3.56
L	2.1	3.2
M	1.0	1.8

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