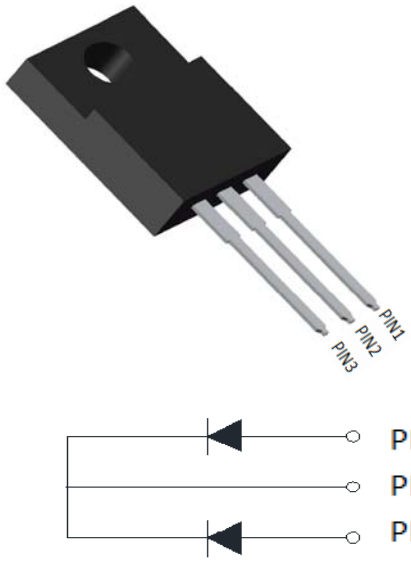
Schottky Diodes



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_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	MBR3080FCT	MBR30100FCT	MBR30120FCT	MBR30150FCT	MBR30200FCT
Device marking code			MBR3080FCT	MBR30100FCT	MBR30120FCT	MBR30150FCT	MBR30200FCT
Repetitive Peak Reverse Voltage	V_{RRM}	V	80	100	120	150	200
Average Rectified Output Current @60Hz sine wave, R-load, T_a=25℃	I_O	A	30				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T_a=25℃	I_{FSM}	A	250				
Current Squared Time @1ms≤t<8.3ms Tj=25℃,	I^2t	A^2s	259				
Storage Temperature	T_{stg}	℃	-55 ~ +175				
Junction Temperature	T_j	℃	-55 ~ +175				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR3080FCT	MBR30100FCT	MBR30120FCT	MBR30150FCT	MBR30200FCT
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=15.0A	0.80		0.85		0.90
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	V_{RM}=V_{RRM} T_a=25℃	0.1				
	I_{RRM2}		V_{RM}=V_{RRM} T_a=125℃	20				

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

Note2:Pulse test:pulse widh 40mS

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

PARAMETER		SYMBOL	UNIT	MBR3080FCT	MBR30100FCT	MBR30120FCT	MBR30150FCT	MBR30200FCT
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
MBR3080FCT THRU MBR30200FCT	Approximate 1.6	50	1000	5000	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

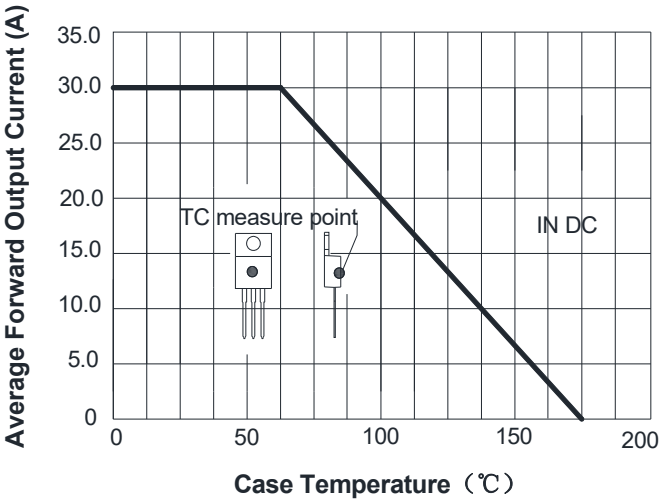


FIG2:Surge Forward Current Capability

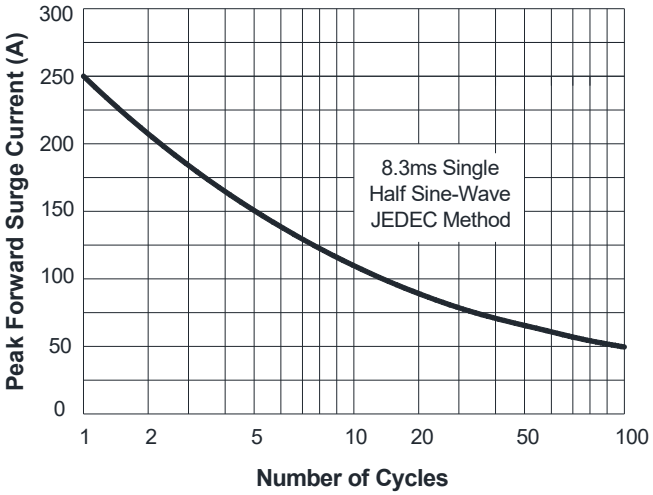


FIG3: Forward Voltage

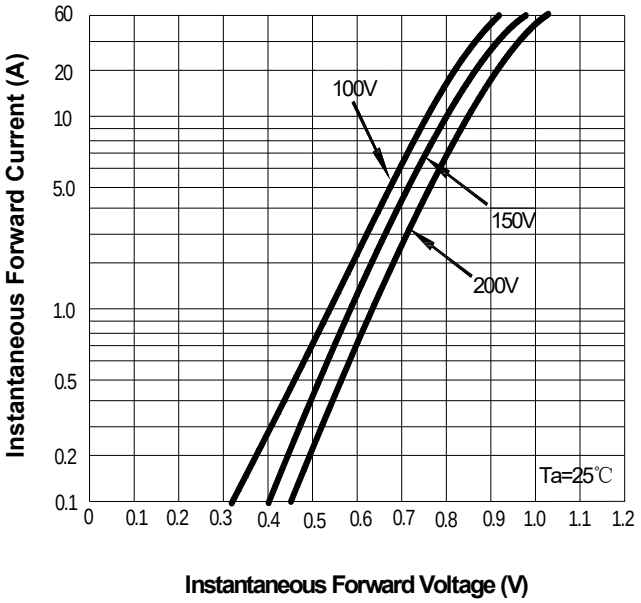
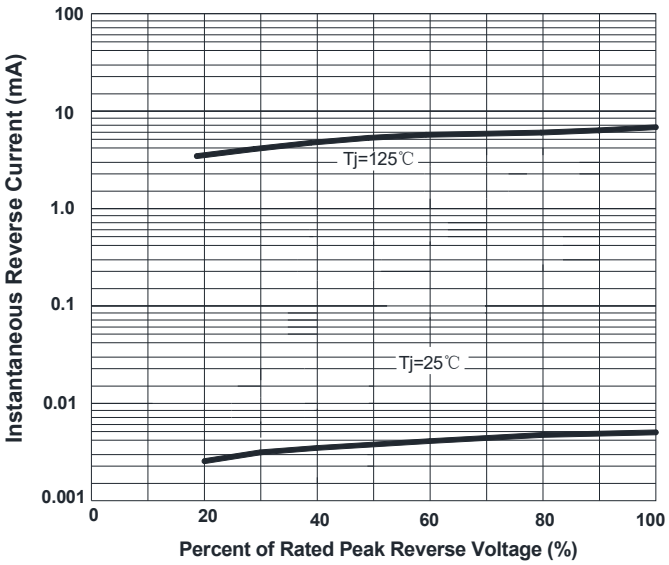
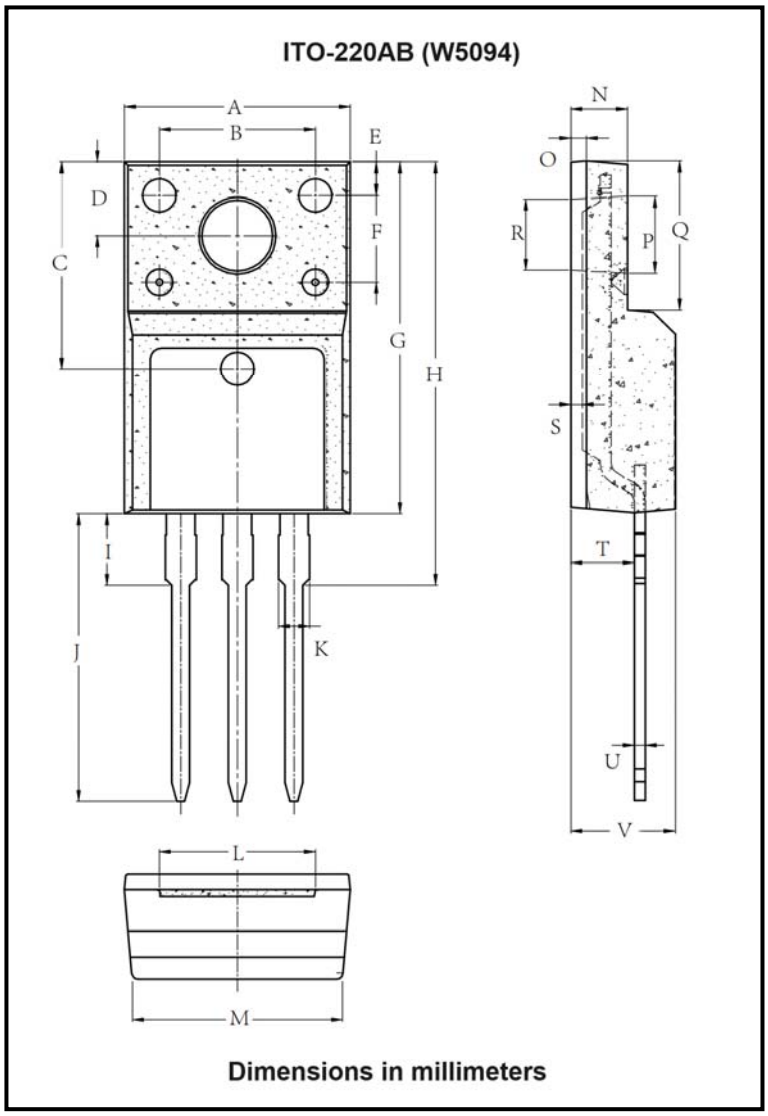


FIG.4: Instantaneous Reverse Characteristics



■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

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