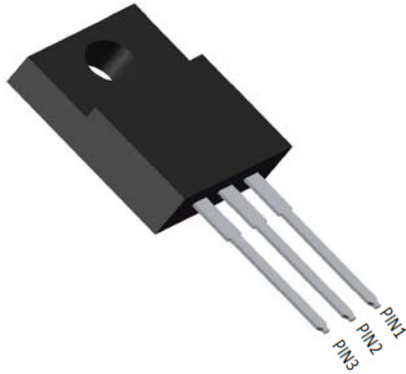


Schottky Diodes



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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR40150FCT-B1-W5094HF
Device marking code			MBR40150FCT
Repetitive Peak Reverse Voltage	V _{RRM}	V	150
Average Rectified Output Current @60Hz sine wave, R-load, T _c (FIG.1)	I _O	A	40
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _j =25°C	I _{FSM}	A	300
Surge(Non-repetitive)Forward Current @1ms, square wave, 1 time, T _j =25°C			600
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	373
Typical junction capacitance Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C.	C _j	pF	410
Storage Temperature	T _{stg}	°C	-55 ~ +175
Junction Temperature	T _j	°C	-55 ~ +175

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V _{FM}	V	I _{FM} =20.0A T _j =25°C	0.5	0.815	0.85
			I _{FM} =20.0A T _j =125°C	-	0.68	0.72
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _j =25°C	-	-	0.1
	I _{RRM2}		V _{RM} =V _{RRM} T _j =125°C	-	-	20

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

Note2:Pulse test:pulse width 40mS



MBR40150FCT-B1-W5094HF

■ Thermal Characteristics ($T_j=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBR40150FCT-B1-W5094HF
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}\text{C/W}$	4.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR40150FCT-B1-W5094HF	Approximate 1.6	50	1000	5000	Tube

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

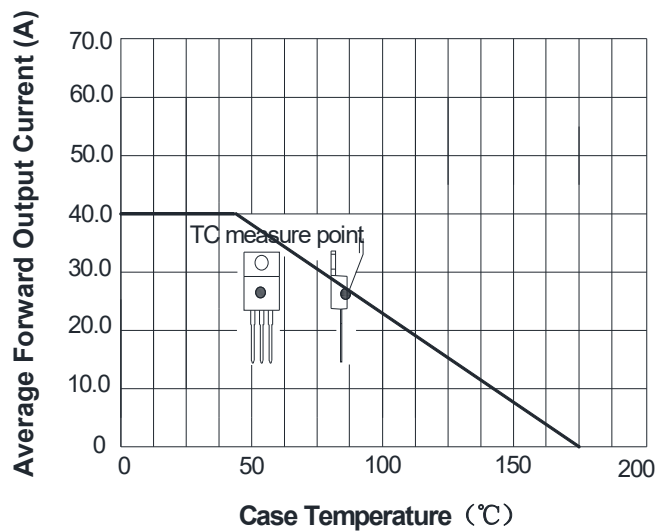


FIG2: Surge Forward Current Capability

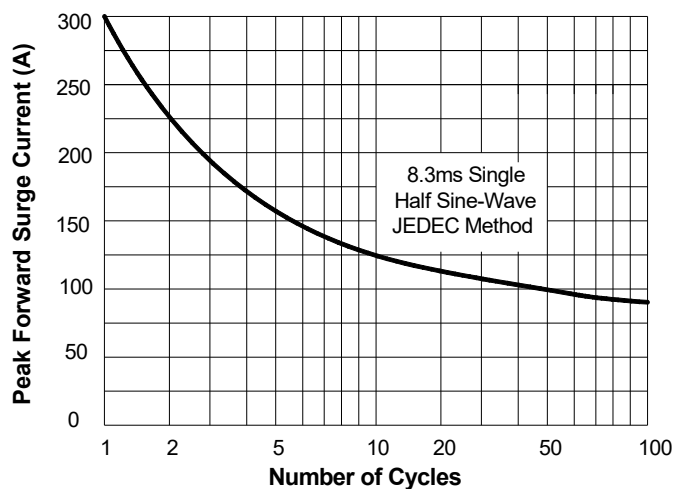


FIG3: Forward Voltage

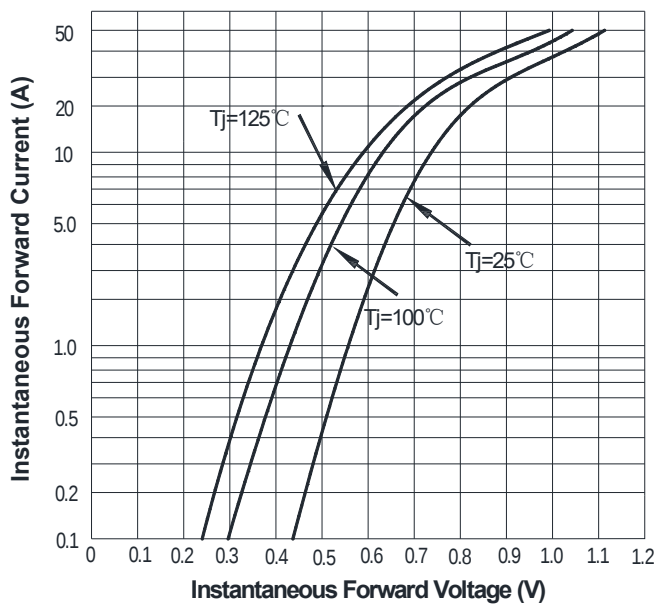
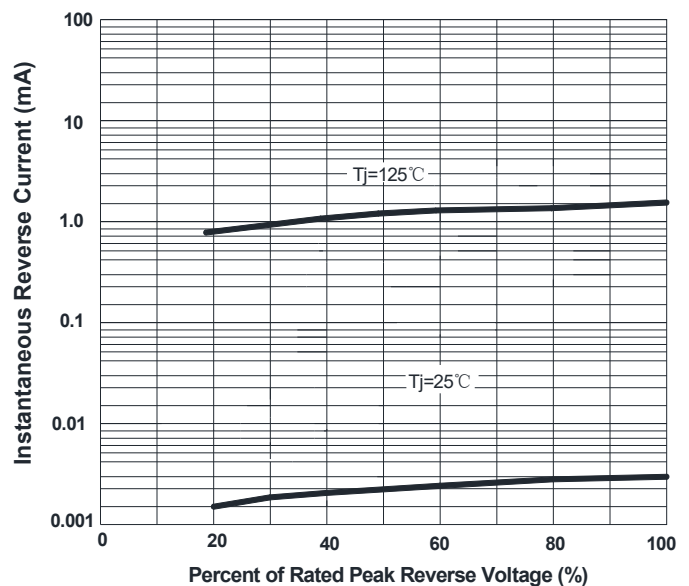


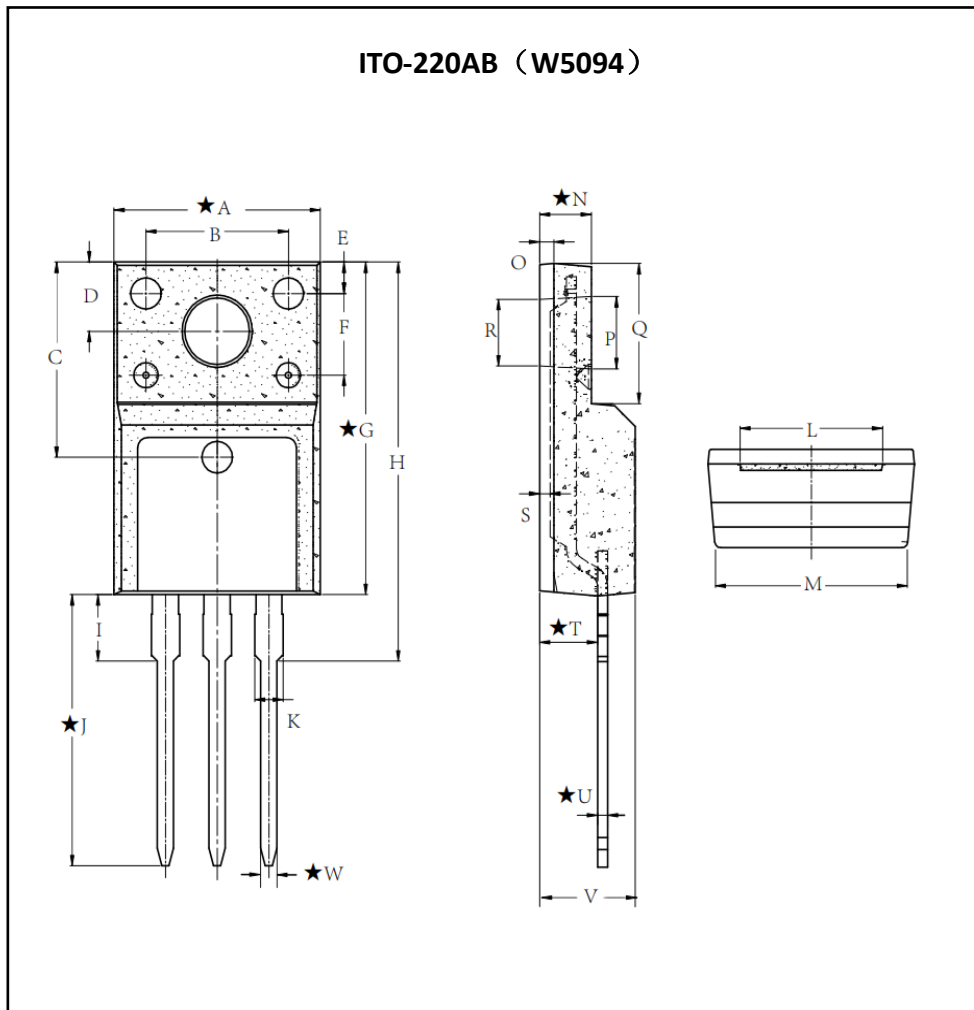
FIG4: Instantaneous Reverse Characteristics





MBR40150FCT-B1-W5094HF

■Outline Dimensions



ITO-220AB		
Dim	Min	Max
A	10.03	10.23
B	6.9	7.1
C	9.21	9.41
D	3.2	3.4
E	1.4	1.6
F	3.8	4.0
G	15.72	16.02
H	TYP 19.05	
I	TYP 3.18	
J	12.65	13.25
K	1.3	1.5
L	6.5	7.5
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	0.4	0.6
V	4.5	4.9
W	0.71	0.91



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