

MBR2040FCT THRU MBR20200FCT

AXIAL SCHOTTKY BARRIER RECTIFIER

ITO-220AB Axial Schottky Barrier Rectifier

Features

- Low power loss,high efficiency
- High forward surge current capability
- High reliability
- High current capability

Applications

For use in low voltage high frequency inverters, free wheeling,DC/DC converters, and polarity protection applications.

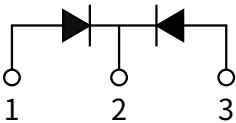
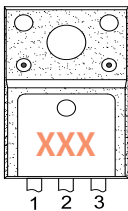
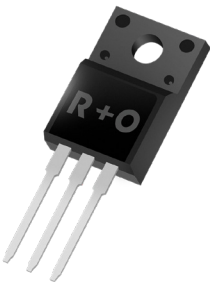
Mechanical Data

- Case: ITO-220AB
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Function Diagram

Reverse Voltage
40-200 V
Forward Current
20 Ampere

ITO-220AB



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

PARAMETER	SYMBOL	UNIT	MBR 2040FCT	MBR 2045FCT	MBR 2050FCT	MBR 2060FCT	MBR 2080FCT	MBR 20100FCT	MBR 20150FCT	MBR 20200FCT
Device marking code			MBR 2040FCT	MBR 2045FCT	MBR 2050FCT	MBR 2060FCT	MBR 2080FCT	MBR 20100FCT	MBR 20150FCT	MBR 20200FCT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	40	45	50	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	28	31.5	35	42	56	70	105	140
Maximum DC blocking Voltage	V_{DC}	V	40	45	50	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	20							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	150							
Storage temperature	T_{stg}	°C	-55 ~ +150							-55 ~ +175
Junction temperature	T_j	°C	-55 ~ +150							-55 ~ +175
Typical Thermal Resistance	$R_{\theta JC}$	°C /W	2.0							

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Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MBR2040FCT	MBR2045FCT	MBR2050FCT	MBR2060FCT	MBR2080FCT	MBR20100FCT	MBR20150FCT	MBR20200FCT
Maximum instantaneous forward voltage	$I_F=10A$	V_F	V	0.65		0.75		0.85		0.92	
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_J=25^{\circ}C$	I_{R1}	mA	0.05				0.02			
	$V_R=V_{DC}, T_J=125^{\circ}C$	I_{R2}		20				20			

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

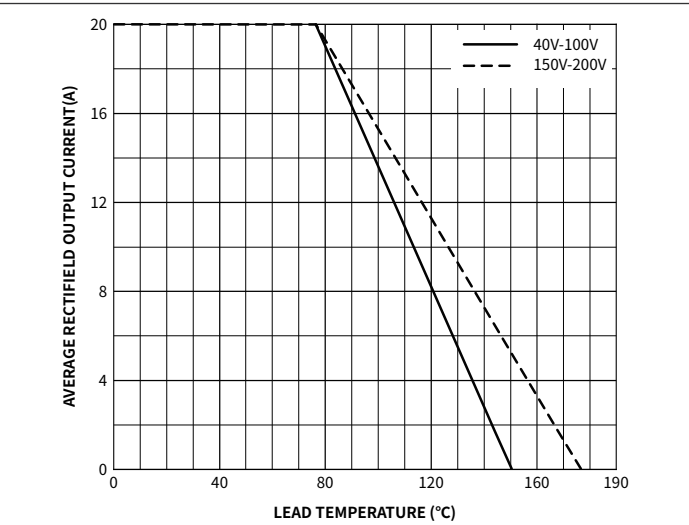


Fig.1 Forward Current Derating Curve

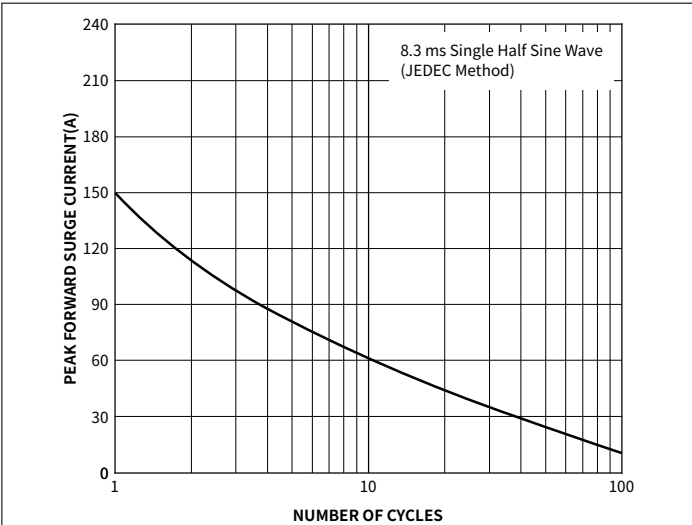


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

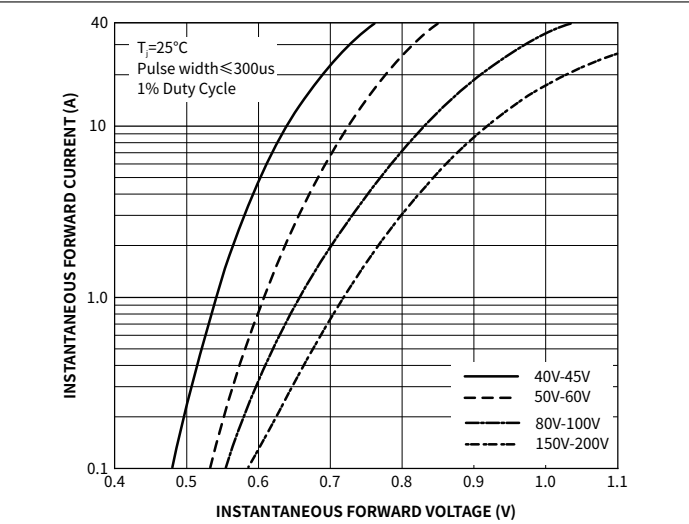


Fig.3 Typical Forward Voltage

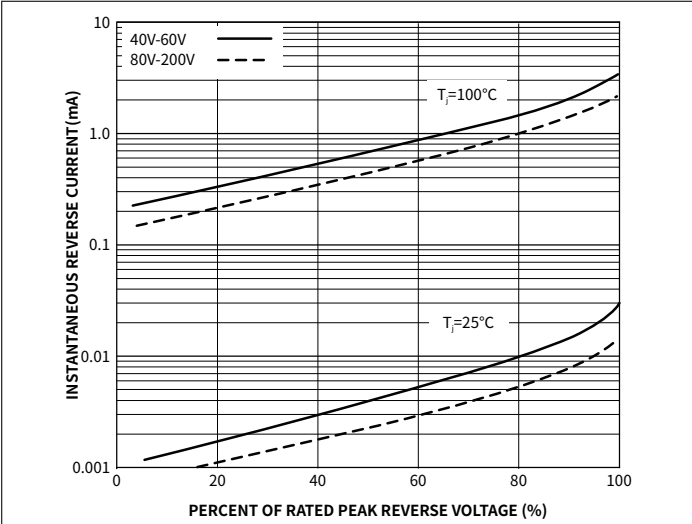


Fig.4 Typical Reverse Characteristics

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● Ordering Information

PACKAGE	UNIT WEIGHT(g)	TUBE(pcs)	BOX(pcs)	CARTON(pcs)
ITO-220AB	2.26	50	1000	5000

● Package Outline Dimensions (ITO-220AB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	14.9	16.0	0.587	0.630
B	9.90	10.40	0.390	0.409
C	6.45	7.15	0.254	0.281
D	7.85	8.75	0.309	0.344
E	2.80	3.50	0.110	0.138
F	12.8	-	0.504	
G	1.10	1.4	0.043	0.055
H	2.35	2.65	0.093	0.104
I	0.45	0.95	0.018	0.037
J	0.40	0.65	0.016	0.026
K	4.35	4.75	0.171	0.187
L	2.55	3.15	0.100	0.124
M	2.45	2.7	0.096	0.106
O	Φ3	Φ3.5	Φ3	Φ3.5