

TO-220AB Axial Schottky Barrier Rectifier

Features

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- High current capability

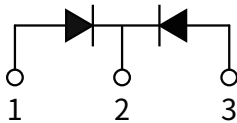
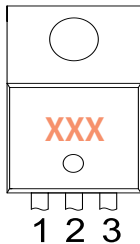
Applications

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

Mechanical Data

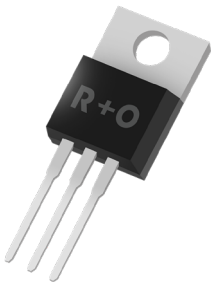
- Case: TO-220AB
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Function Diagram



Reverse Voltage
100 V
Forward Current
40 Ampere

TO-220AB



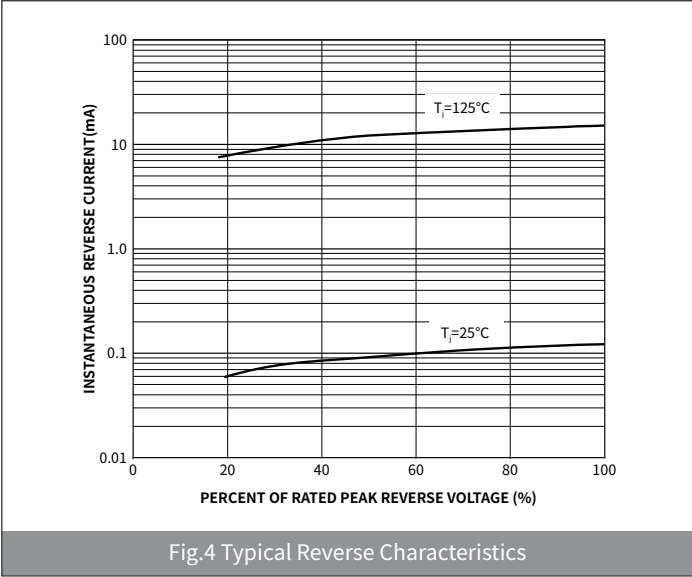
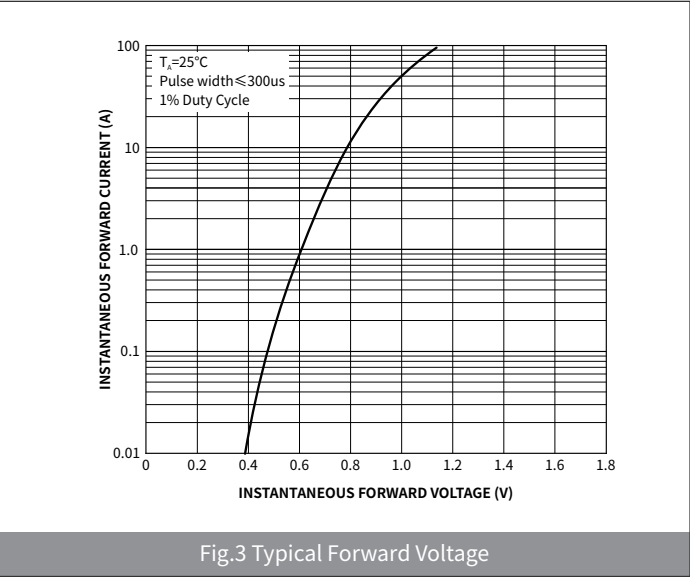
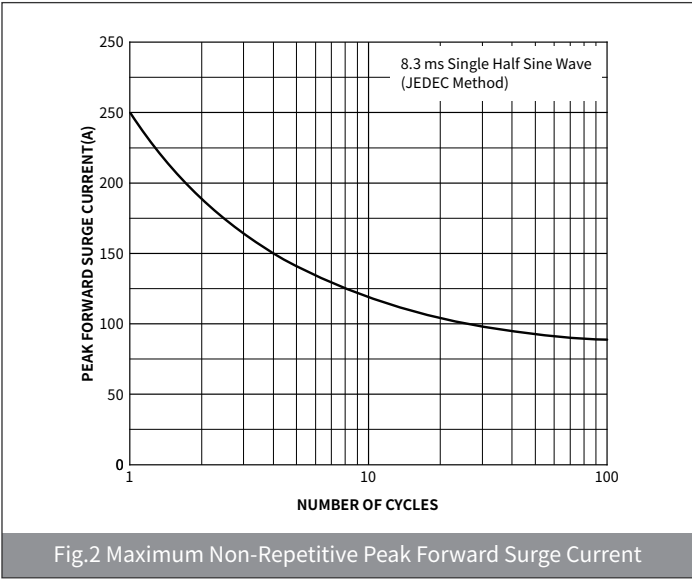
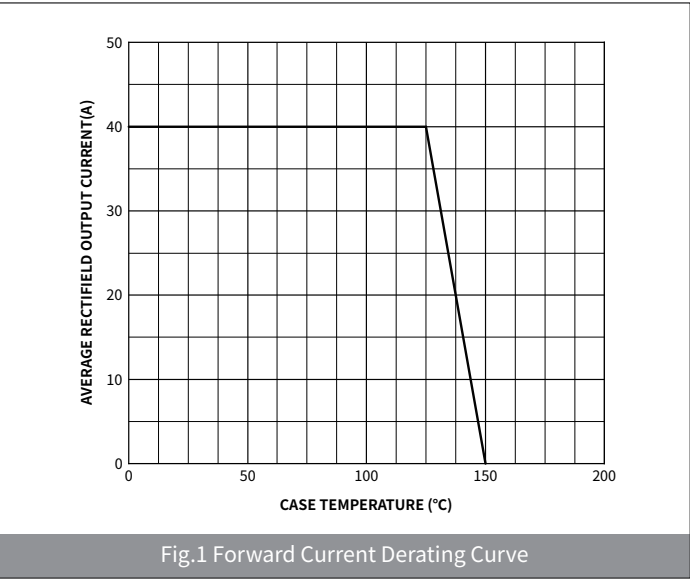
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR40100CTA
Device marking code			MBR40100CTA
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	100
Maximum RMS Voltage	V_{RMS}	V	70
Maximum DC blocking Voltage	V_{DC}	V	100
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	40
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	250
Current Squared Time @1ms ≤ t<8.3ms Tj=25°C	I^2t	A ² S	259
Storage temperature	T_{stg}	°C	-55 ~ +150
Junction temperature	T_j	°C	-55 ~ +150
Typical Thermal Resistance	$R_{\theta JC}$	°C /W	2.0

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MIN	TYP	MAX
Maximum instantaneous forward voltage	$I_F=20A$	V_F	V	—	—	0.9
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_a=25^{\circ}C$	I_{R1}	mA	—	—	0.15
	$V_R=V_{DC}, T_a=125^{\circ}C$	I_{R2}	mA	—	—	20

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



MBR40100CTA

AXIAL SCHOTTKY BARRIER RECTIFIER

● Ordering Information

PACKAGE	UNIT WEIGHT(g)	TUBE(pcs)	BOX(pcs)
TO-220AB	2.04	50	1000

● Package Outline Dimensions (TO-220AB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	14.50	15.50	0.571	0.610
B	9.50	10.50	0.374	0.413
C	6.10	6.5 0	0.240	0.256
D	8.40	9.0	0.212	0.354
E	3.0	4.0	0.118	0.157
F	13.5	14.5	0.531	0.57
G	1.17	1.37	0.0436	0.054
H	2.44	2.64	0.096	0.104
I	0.70	0.90	0.027	0.035
J	0.30	0.50	0.012	0.019
K	4.40	4.80	0.173	0.189
L	2.45	2.85	0.096	0.111
M	1.17	1.37	0.046	0.054
O	Φ3.60	Φ4.0	0.142	0.157