

40A,200V Schottky Barrier Rectifier

Features

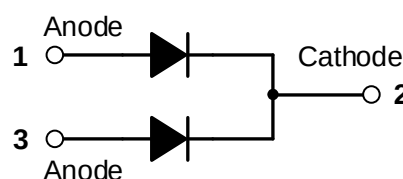
- Low forward voltage, low power loss
- Low leakage current
- High surge current
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21



ITO-220AB

Applications

- SMPS
- Adapter
- Server Power



Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	MBRF40H200CTY	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	200	V
Maximum RMS voltage	V _{RMS}	140	V
Maximum DC blocking voltage	V _{DC}	200	V
Maximum average forward	I _{F(AV)}	40	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	325	A
Operating junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Electrical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Typ	Max	Unit
Forward Drop Voltage ^(Note1)	V_F	$I_F=20\text{A}, T_J=25^{\circ}\text{C}$	0.86	0.92	V
		$I_F=20\text{A}, T_J=125^{\circ}\text{C}$	0.78	0.86	
		$I_F=40\text{A}, T_J=25^{\circ}\text{C}$	-	-	
		$I_F=40\text{A}, T_J=125^{\circ}\text{C}$	-	-	
Reverse leakage current @VR ^(Note2)	I_R	$T_J=25^{\circ}\text{C}$	-	10	μA
		$T_J=125^{\circ}\text{C}$	-	5	mA

Thermal-Mechanical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.5	$^{\circ}\text{C}/\text{W}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	62.5	$^{\circ}\text{C}/\text{W}$

Note:

1. Pulse test with $PW=0.3\text{ms}$, duty cycle=2%
2. Pulse test with $PW=30\text{ms}$

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

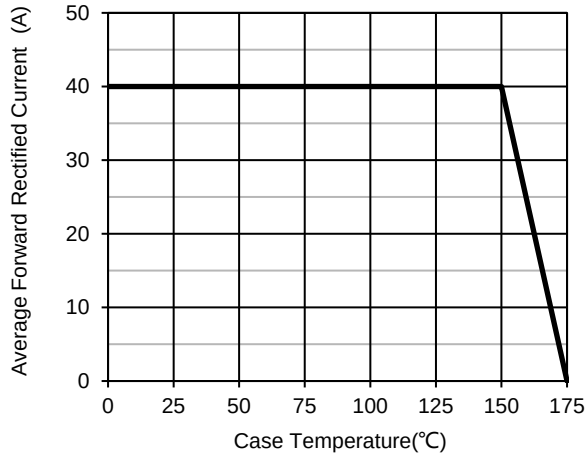


Fig.1 – Forward Current Derating Curve

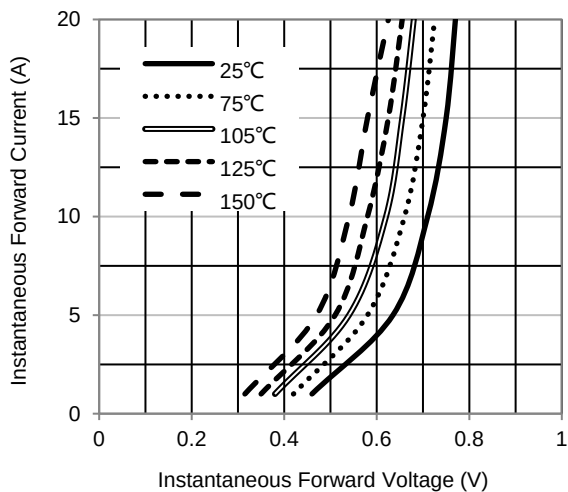


Fig.3 – Typical Forward Voltage Characteristics

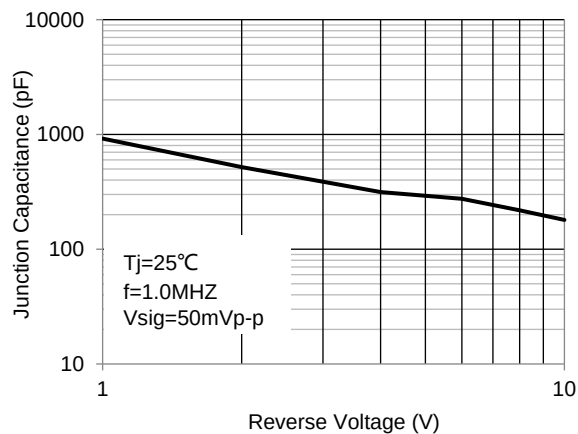


Fig.5 – Typical Junction Capacitance

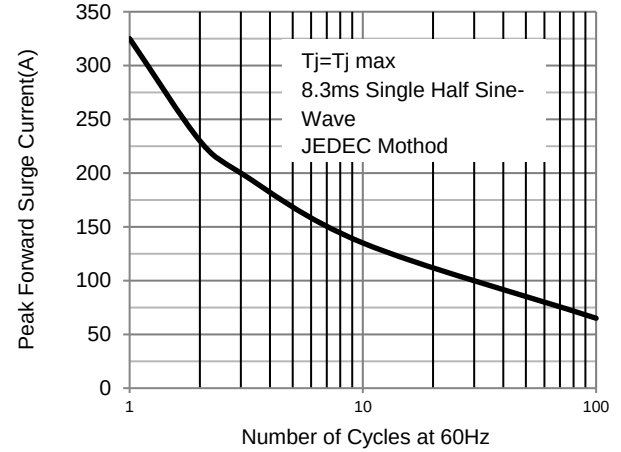


Fig.2 – Maximum Non-Repetitive Surge Current

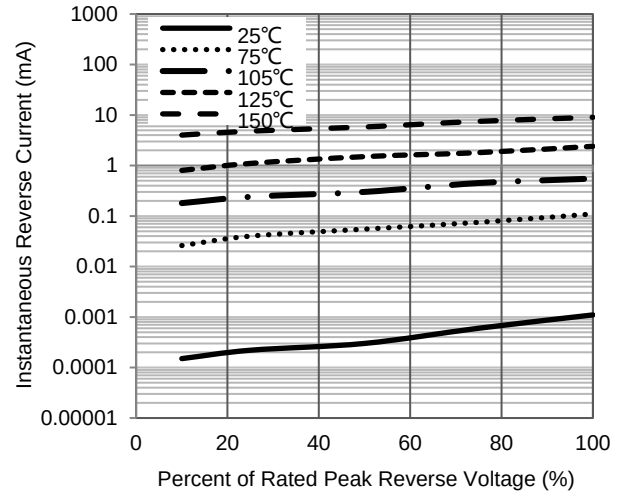
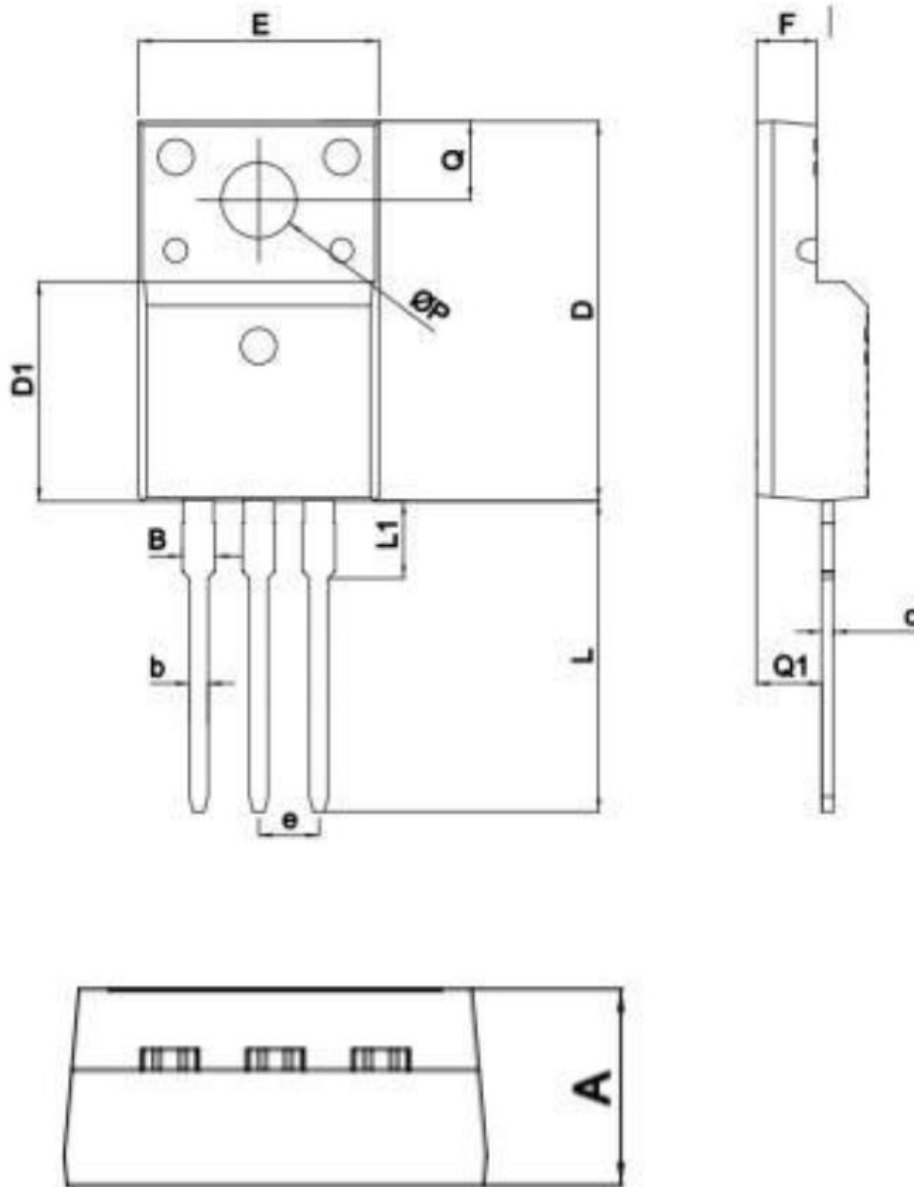
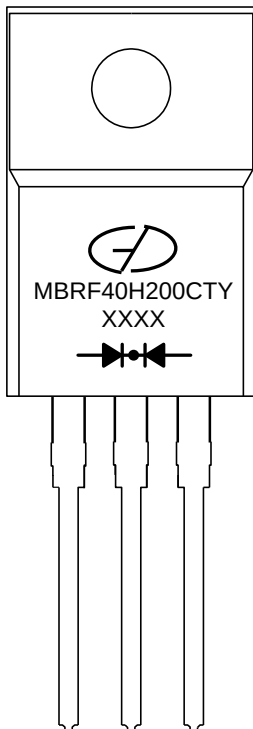


Fig.4 –Maximum Reverse Current Characteristics

Package Outline Dimensions (Unit: millimeters)**ITO-220AB**

ITO-220AB					
SYMBOL	MM		SYMBOL	MM	
	MIN	MAX		MIN	MAX
A	4.50	4.90	E	9.9	10.4
B	2.34	2.74	F	2.3	2.8
b	0.38	0.48	L	12.6	13.3
c	2.66	2.86	L1	3.1	3.4
D	1.23	1.33	Q	3.2	3.4
D1	0.75	0.85	Q1	2.6	2.9
e	2.54TYPE		φ P	3.0	3.5

Marking Outline



1. Logo Mark:
2. Part Name: MBRF40H200CTY
3. Data Code: XXXX
4. Polarity :

Revision History

Document Version	Date of release	Description of changes
Rev.A	2022.04.15	Preliminary Datasheet

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