

MBR10B100CTH/FCTH/CRH/CGH

Power Schottky Rectifier - 10Amp 100Volt

Features

- -Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- -High Junction Temperature Capability
- -Low forward voltage, high current capability
- -High surge capacity
- -Low power loss, high efficiency
- -ESD performance human body mode > 8 KV
- -Halogen-Free

Application

-AC/DC Switching Adaptor and other Switching Power Supply

☐ Absolute maximum ratings

Symbol	Ratings	Unit	Conditions		
I F(AV)	10	Α	Average Forward Current		
VRRM	100	V	Repetitive Peak Reverse Voltage		
IFSM	120	Α	Peak Forward Surge Current		
VF	0.66	V	Forward Voltage Drop		
Tj, Tstg	-50 to +175	°C	Operating and Storage Temperature		

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
			Per Leg at IF = 5A
Maximum Instantaneous Forward Voltage	VF	0.82V	Tc = 25°C
		0.66V	Tc = 125°C
			Per Leg at VR = 100V
Maximum Reverse Leakage Current	lr	0.05mA	Tc = 25°C
		10mA	Tc = 125°C
			Per Leg
Typical Thermal Resistance, Junction to Case	Rθ (j-c)	2.2 °C/W	TO-220AB / TO-262 / TO-263
		4.5 °C/W	ITO-220AB

Note: 1.Mounted on P.C.B with copper pad size 20mm x 30mm, thickness 1.5mm

2.Reverse Surge 2.0A @ 0.004ms, 10 cycle

3.Repetitive Peak Reverse Current (IRRM) 0.5A @ Per Leg at tp = 2µs, 1kHz

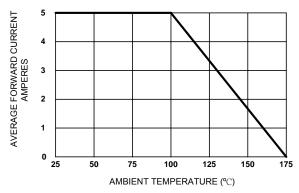


Figure 1. Forward Current Derating Curve

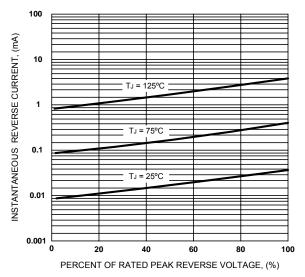


Figure 3. Typical Reverse Characteristics

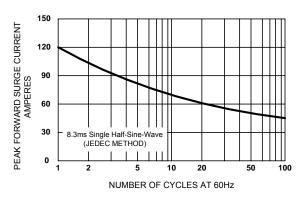


Figure 2. Maximum Non-repetitive Surge Current

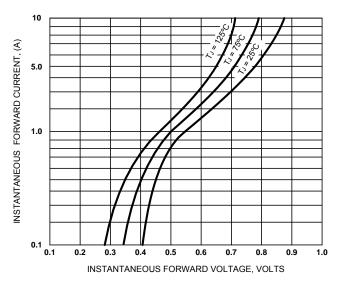


Figure 4. Typical Forward Characteristics

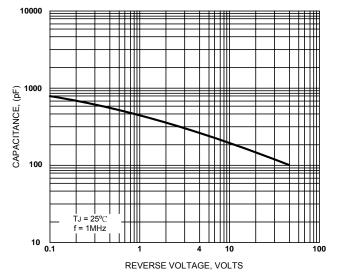
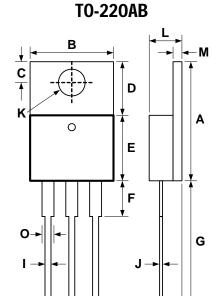


Figure 5. Typical Junction Capacitance

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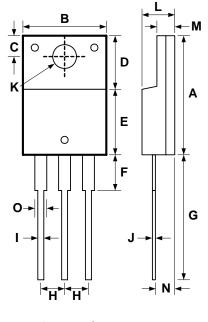


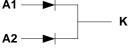


DIMENSIONS						
DIM	INCHES		MILLIMETERS		NOTE	
	MIN	MAX	MIN	MAX	NOIL	
Α	.593	.612	15.05	15.55		
В	.392	.411	9.95	10.45		
С	.104	.116	2.65	2.95		
D	.244	.264	6.20	6.70		
Е	.339	.358	8.60	9.10		
F	.154	.173	3.90	4.40		
G	.539	.559	13.70	14.20		
Н	.096	.108	2.45	2.75		
ı	.028	.037	0.70	0.95		
J	.012	.020	0.30	0.50		
K	.146	.157	3.70	4.00		
L	.175	.187	4.45	4.75		
М	.045	.057	1.15	1.45		
N	.098	.114	2.50	2.90		
0	.047	.057	1.20	1.45		

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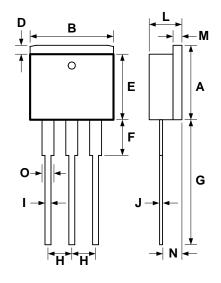


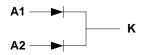


DIMENSIONS						
DIM	INCHES		MILLIMETERS		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	.585	.604	14.85	15.35		
В	.386	.406	9.80	10.30		
С	.100	.112	2.55	2.85		
D	.250	.270	6.35	6.85		
Е	.325	.344	8.25	8.75		
F	.132	.152	3.35	3.85		
G	.520	.539	13.20	13.70		
Н	.096	.108	2.45	2.75		
ı	.020	.028	0.50	0.70		
J	.020	.028	0.50	0.70		
K	.120	.132	3.05	3.35		
L	.169	.185	4.30	4.70		
М	.114	.130	2.90	3.30		
N	.098	.114	2.50	2.90		
0	.043	.055	1.10	1.40		

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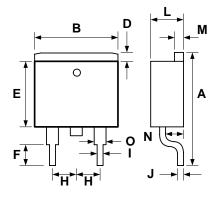


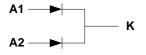


DIMENSIONS						
DIM	INCHES		MILLIMETERS		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	.398	.417	10.10	10.60		
В	.391	.411	9.95	10.45		
D	.049	.065	1.25	1.65		
Ε	.338	.358	8.60	9.10		
F	.153	.173	3.90	4.40		
G	.539	.559	13.70	14.20		
Н	.096	.108	2.45	2.75		
1	.027	.037	0.70	0.95		
J	.012	.020	0.30	0.50		
L	.175	.187	4.45	4.75		
М	.045	.057	1.15	1.45		
N	.098	.114	2.50	2.90		
0	.047	057	1.20	1.45		

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DIMENSIONS						
DIMENSIONS						
DIM	INCHES		MILLIMETERS		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	.590	.610	15.00	15.50		
В	.391	.411	9.95	10.45		
D	.049	.065	1.25	1.65		
Е	.338	.358	8.60	9.10		
F	.087	.106	2.20	2.70		
Н	.096	.108	2.45	2.75		
I	.027	.037	0.70	0.95		
J	.012	.020	0.30	0.50		
L	.175	.187	4.45	4.75		
М	.045	.057	1.15	1.45		
N	.098	.114	2.50	2.90		
0	.047	.057	1.20	1.45		



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