

MBR10W300CTH/FCTH

Trench MOS Barrier Schottky Rectifier - 10Amp 300Volt

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
- -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	300	V	Repetitive Peak Reverse Voltage	
IFSM	120	Α	Peak Forward Surge Current	
VF	0.70	V	Forward Voltage Drop	
Tj, Tstg	-65 to +150	°C	Operating and Storage Temperature	

Electrical characteristics

Parameters	Symbol	Ratings	Conditions	
			Per Leg at IF = 5A	
Maximum Instantaneous Forward Voltage	VF	0.85V	Tc = 25°C	
		0.70V	Tc = 125°C	
			Per Leg at VR = 300V	
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	
		4.5 °C/W	ITO-220AB	

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

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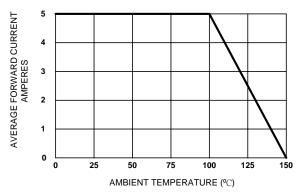
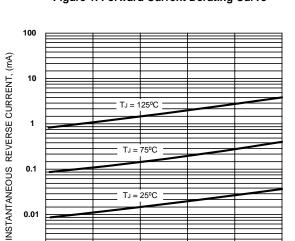


Figure 1. Forward Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)
Figure 3. Typical Reverse Characteristics

0.001

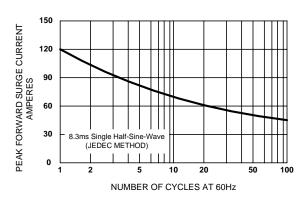


Figure 2. Maximum Non-repetitive Surge Current

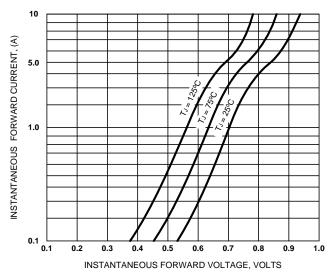
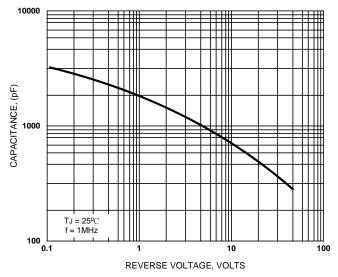


Figure 4. Typical Forward Characteristics

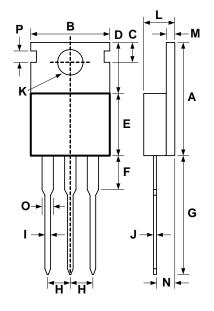


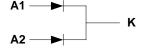
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Figure 5. Typical Junction Capacitance

MBR10W300CTH

T0-220AB

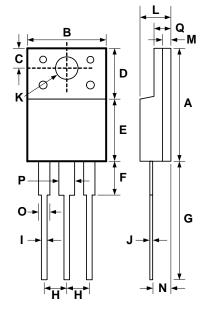


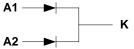


DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	.610	.630	15.5	16.00	
В	.390	.413	9.90	10.50	
С	.106	.126	2.70	3.20	
D	.228	.272	5.80	6.90	
Е	.348	.372	8.85	9.45	
F	.102	.142	2.60	3.60	
G	.512	.551	13.00	14.00	
Н	.093	.112	2.35	2.85	
I	.028	.037	0.70	0.95	
J	.016	.026	0.40	0.65	
K	.132	.152	3.35	3.85	
L	.169	.185	4.30	4.70	
М	.045	.057	1.15	1.45	
N	.089	.112	2.25	2.85	
0	.043	.055	1.10	1.40	
Р	.055	.067	1.40	1.70	

MBR10W300FCTH

ITO-220AB





DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	.581	.600	14.75	15.25	
В	.386	.410	9.80	10.40	
С	.102	.122	2.60	3.10	
D	.228	.272	5.80	6.90	
Ε	.315	.339	8.00	8.60	
F	.138	.177	3.50	4.50	
G	.512	.551	13.00	14.00	
Н	.093	.112	2.35	2.85	
ı	.020	.030	0.50	0.75	
J	.020	.030	0.50	0.75	
K	.120	.140	3.05	3.55	
L	.169	.185	4.30	4.70	
М	.039	.051	1.00	1.30	
N	.089	.112	2.25	2.85	
0	.043	.055	1.10	1.40	
Р	.059	.071	1.50	1.80	
Q	.114	.130	2.90	3.30	



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