SIRECT ELECTRONIC

MBR10B150CH/FCH

Power Schottky Rectifier - 10Amp 150Volt

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 > 6 KV
-Halogen-Free

Application

-AC/DC Switching Adaptor and other Switching Power Supply

Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
$I_{F(AV)}$	10	A	Average Forward Current
V_{RRM}	150	V	Repetitive Peak Reverse Voltage
I_{FSM}	120	A	Peak Forward Surge Current
V_F	0.69	V	Forward Voltage Drop
T_j, T_{stg}	-50 to +175	ºC	Operating and Storage Temperature

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V_F	0.88V 0.69V	Per Leg at I_F = 10A Tc = 25ºC Tc = 125ºC
Maximum Reverse Leakage Current	I_R	0.05mA 10mA	Per Leg at V_R = 150V Tc = 25ºC Tc = 125ºC
Typical Thermal Resistance,Junction to Case	$R_{\theta (j-c)}$	2.2 ºC/W 4.5 ºC/W	Per Leg TO-220AC ITO-220AC

Note : 1.Mounted on P.C.B with copper pad size 20mm x 30mm, thickness 1.5mm
2.Reverse Surge 1.5A @ 0.004ms, 10 cycle
3.Repetitive Peak Reverse Current (I_{RRM}) 0.5A @ Per Leg at tp = 2μs, 1kHz

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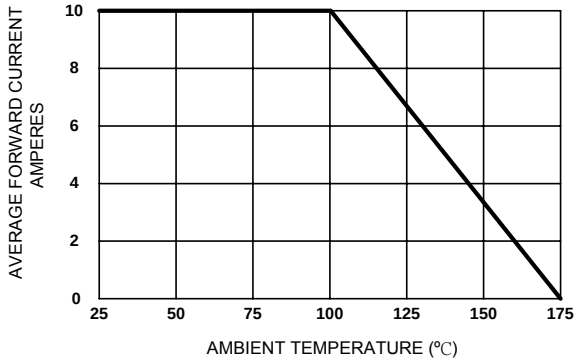

Figure 1. Forward Current Derating Curve

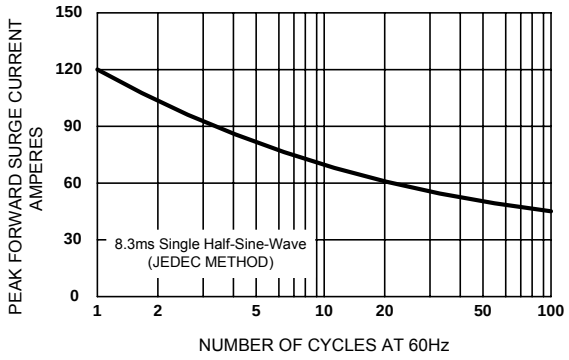

Figure 2. Maximum Non-repetitive Surge Current

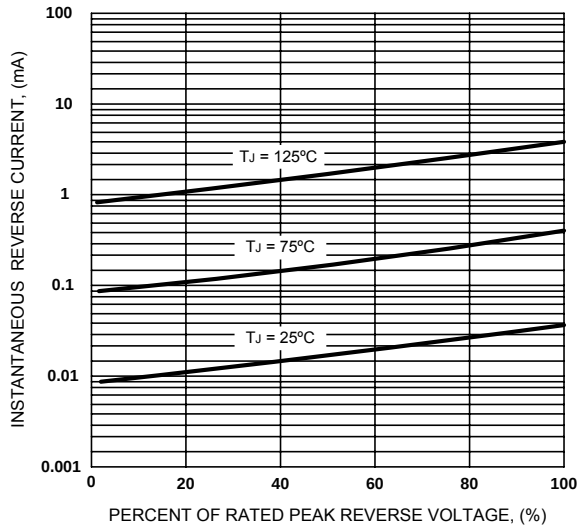

Figure 3. Typical Reverse Characteristics

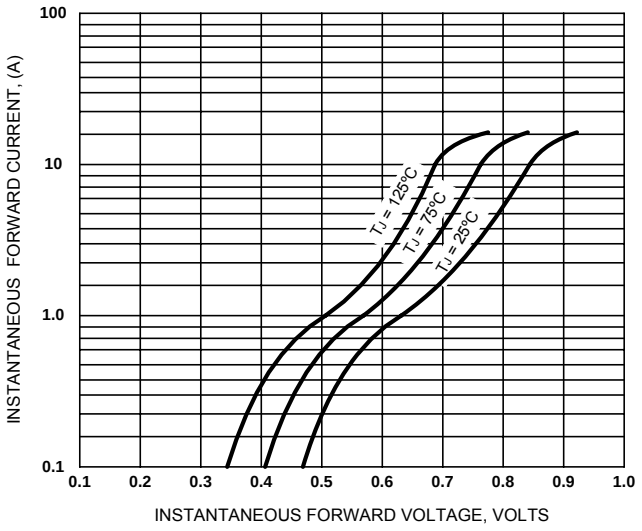

Figure 4. Typical Forward Characteristics

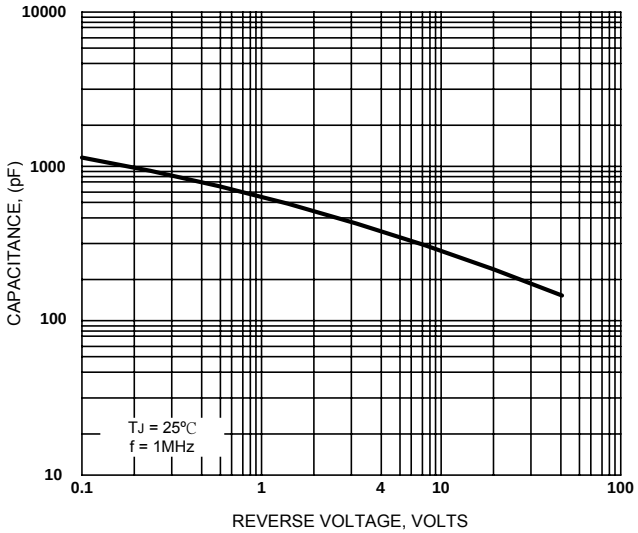

Figure 5. Typical Junction Capacitance

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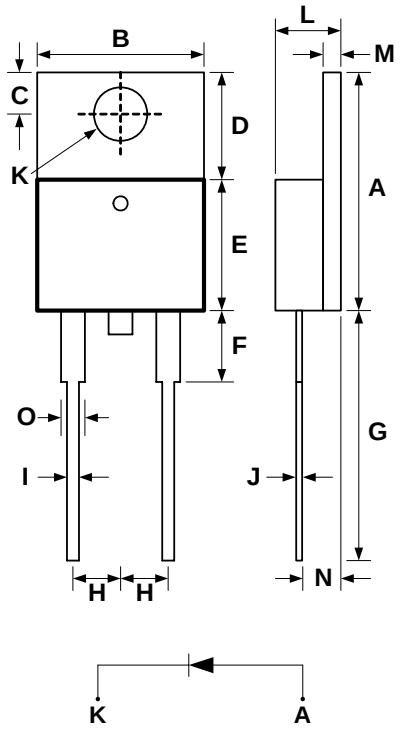

DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.593	.612	15.05	15.55	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.244	.264	6.20	6.70	
E	.339	.358	8.60	9.10	
F	.154	.173	3.90	4.40	
G	.539	.559	13.70	14.20	
H	.096	.108	2.45	2.75	
I	.028	.037	0.70	0.95	
J	.012	.020	0.30	0.50	
K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

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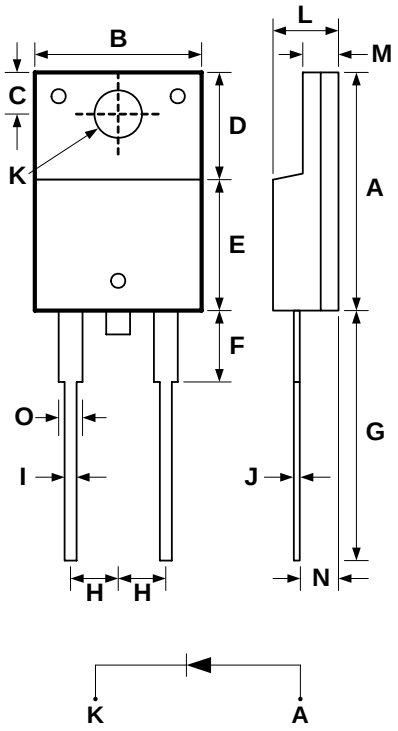

DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.585	.604	14.85	15.35	
B	.386	.406	9.80	10.30	
C	.100	.112	2.55	2.85	
D	.250	.270	6.35	6.85	
E	.325	.344	8.25	8.75	
F	.132	.152	3.35	3.85	
G	.520	.539	13.20	13.70	
H	.096	.108	2.45	2.75	
I	.020	.028	0.50	0.70	
J	.020	.028	0.50	0.70	
K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

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