SIRECT ELECTRONIC

MBR10U100CTH

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

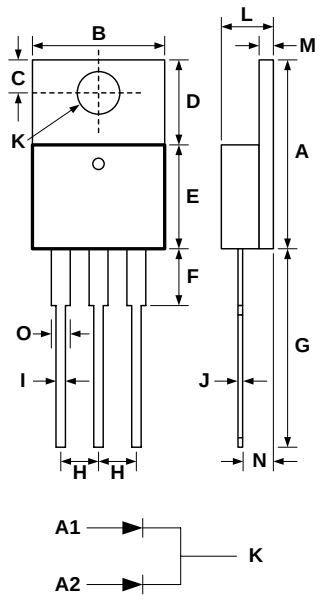
Symbol	Ratings	Unit	Conditions
$I_{F(AV)}$	10	A	Average Forward Current
V_{RRM}	100	V	Repetitive Peak Reverse Voltage
I_{FSM}	120	A	Peak Forward Surge Current
$V_{F(max)}$	0.54	V	Forward Voltage Drop
T_j	-50 to +150	ºC	Operating Temperature
T_{stg}	-50 to +150	ºC	Storage Temperature

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V_F	0.72V 0.54V	Tc = 25ºC Tc = 125ºC
Maximum Reverse Leakage Current	I_R	0.05mA 10mA	Tc = 25ºC Tc = 125ºC
Maximum Voltage Rate of Change	dv/dt	10,000 V/μs	Rated V_R
Typical Thermal Resistance, Junction to Case	$R_{\theta (j-c)}$	2.2. ºC/W	Per diode

Note: Pulse Test : 380μs pulse width, 2% duty cycle

TO-220AB



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.579	.606	14.70	15.40	
B	.392	.411	9.95	10.45	
C	.114	.126	2.90	3.20	
D	.248	.272	6.30	6.90	
E	.325	.350	8.25	8.90	
F	.153	.173	3.90	4.40	
G	.492	.551	12.50	14.00	
H	.102	.114	2.60	2.90	
I	.028	.039	0.70	1.00	
J	.010	.022	0.25	0.55	
K	.146	.157	3.70	4.00	
L	.167	.187	4.25	4.75	
M	.045	.057	1.15	1.45	
N	.089	.114	2.25	2.90	
O	.047	.055	1.20	1.40	

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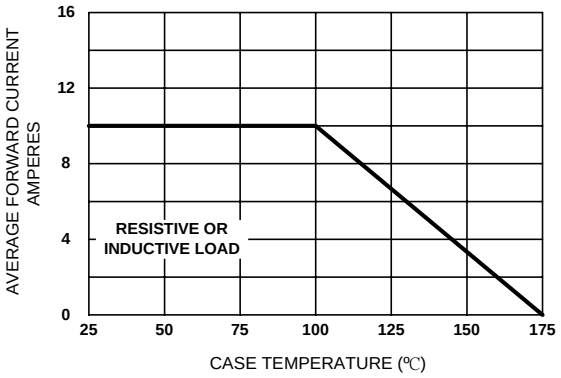

Figure 1. Forward Current Derating Curve

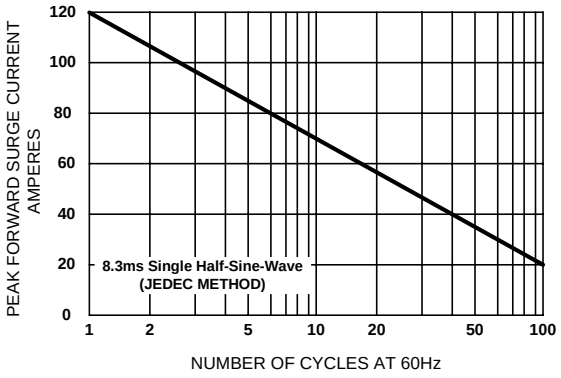

Figure 2. Maximum Non-repetitive Surge Current

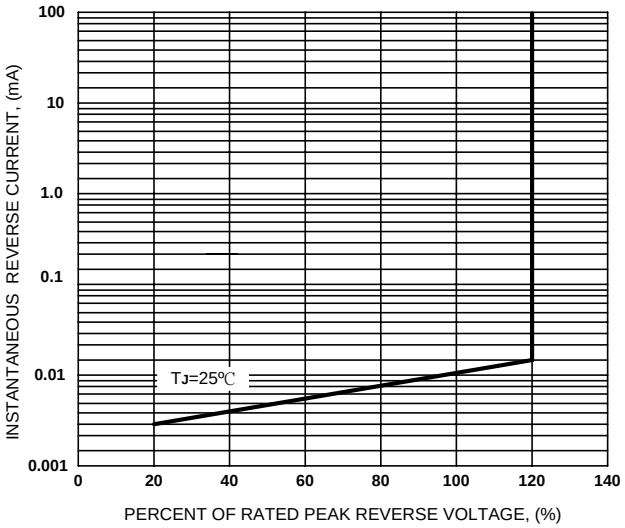

Figure 3. Typical Reverse Characteristics

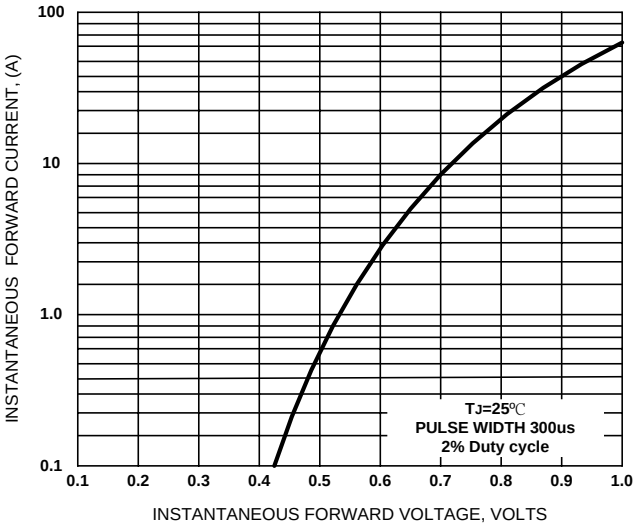

Figure 4. Typical Forward Characteristics

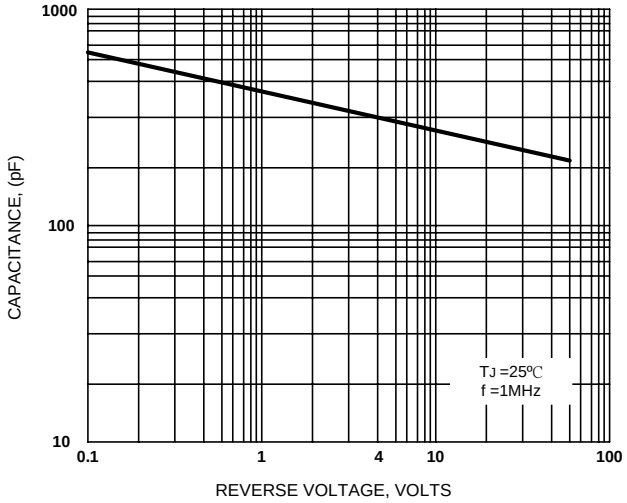

Figure 5. Typical Junction Capacitance