SIRECT ELECTRONIC

MBR20V60CTH/FCTH

Trench MOS Barrier Schottky Rectifier - 20Amp 60Volt

☐ 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
$I_{F(AV)}$	20	A	Average Forward Current
V_{RRM}	60	V	Repetitive Peak Reverse Voltage
I_{FSM}	150	A	Peak Forward Surge Current
V_F	0.56	V	Forward Voltage Drop
T_j, T_{stg}	-65 to +150	ºC	Operating and Storage Temperature

☐ Electrical characteristics

Parameters	Symbol	Ratings		Conditions
Instantaneous Forward Voltage	V_F	TYP.	MAX.	Per Leg at I_F = 10A
		0.59V	0.62V	Tc = 25ºC
		0.56V	0.59V	Tc = 125ºC
Reverse Leakage Current	I_R	TYP.	MAX.	Per Leg at V_R = 60V
		0.2mA	0.5mA	Tc = 25ºC
		25mA	50mA	Tc = 125ºC
Typical Thermal Resistance,Junction to Case	$R_{\theta (j-c)}$	2.2 ºC/W		Per Leg
		4.5 ºC/W		TO-220AB
				ITO-220AB

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

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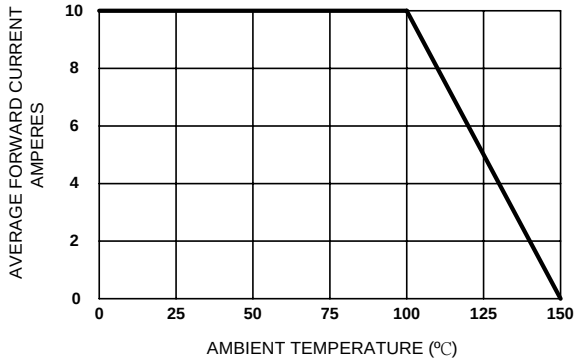

Figure 1. Forward Current Derating Curve

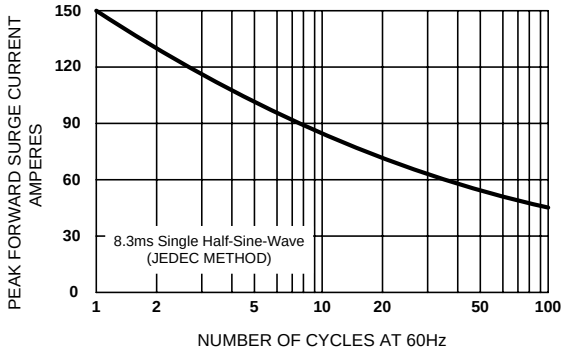

Figure 2. Maximum Non-repetitive Surge Current

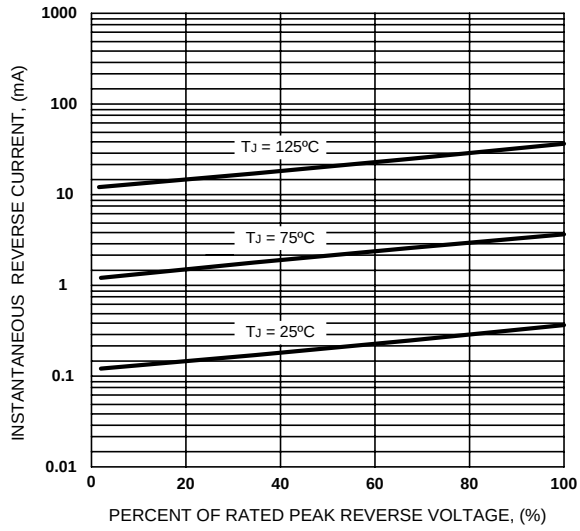

Figure 3. Typical Reverse Characteristics

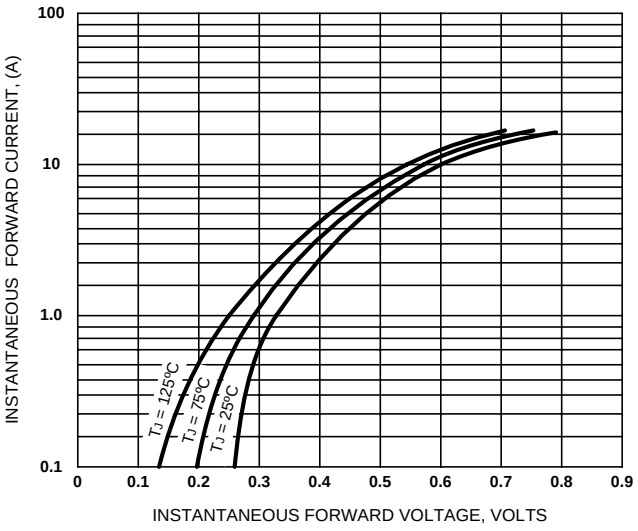

Figure 4. Typical Forward Characteristics

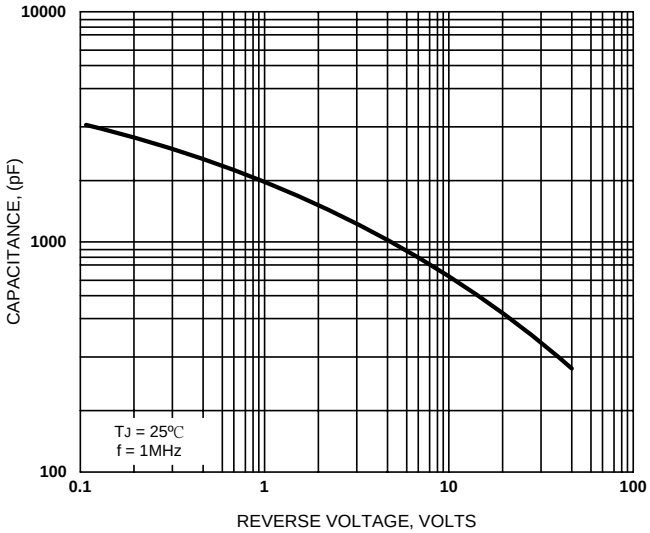

Figure 5. Typical Junction Capacitance

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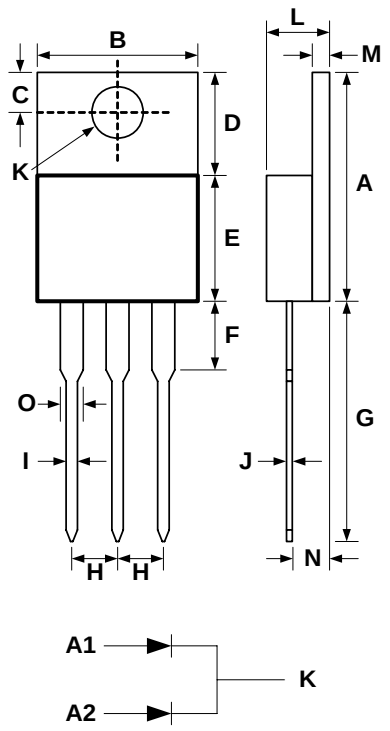

DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.590	.630	15.0	16.00	
B	.390	.413	9.90	10.50	
C	.098	.138	2.50	3.50	
D	.228	.272	5.80	6.90	
E	.344	.384	8.75	9.75	
F	.142	.165	3.60	4.20	
G	.512	.551	13.00	14.00	
H	.093	.112	2.35	2.85	
I	.026	.037	0.65	0.95	
J	.012	.026	0.30	0.65	
K	.136	.160	3.45	4.05	
L	.169	.185	4.30	4.70	
M	.043	.059	1.10	1.50	
N	.087	.126	2.20	3.20	
O	.039	.055	1.00	1.40	

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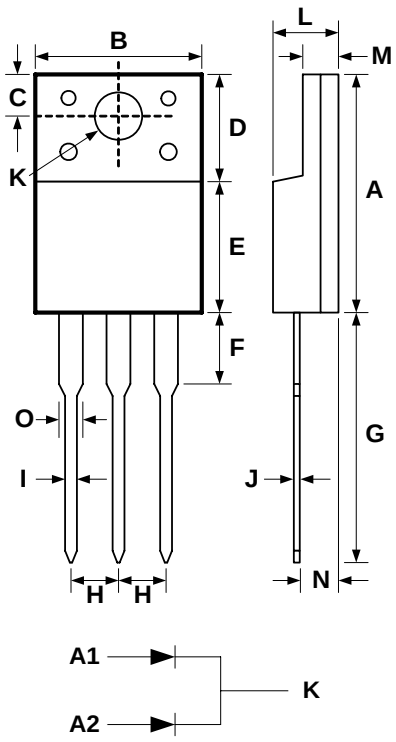

DIMENSIONS					
DIM	INCHES		MILLIMETERS		NOTE
	MIN	MAX	MIN	MAX	
A	.598	.638	15.20	16.20	
B	.386	.410	9.80	10.40	
C	.098	.138	2.50	3.50	
D	.232	.276	5.90	7.00	
E	.344	.384	8.75	9.75	
F	.118	.142	3.00	3.60	
G	.472	.532	12.00	13.50	
H	.093	.112	2.35	2.85	
I	.026	.037	0.65	0.95	
J	.012	.026	0.30	0.65	
K	.124	.148	3.15	3.75	
L	.173	.189	4.40	4.80	
M	.091	.106	2.30	2.70	
N	.094	.134	2.40	3.40	
O	.039	.055	1.00	1.40	

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