

Power Schottky Rectifier - 30Amp 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

Application

- AC/DC Switching Adaptor and other Switching Power Supply

Absolute maximum ratings

Symbol	Ratings	Unit	Conditions
I <sub>F(AV)</sub>	30	A	At T <sub>c</sub> =125°C
V <sub>RRM</sub>	100	V	Maximum repetitive peak reverse voltage
I <sub>FSM</sub>	250	A	8.3ms single half sine-wave single shot
V <sub>F(max)</sub>	0.85	V	At I <sub>F</sub> =15A, T <sub>c</sub> =25°C
T <sub>j</sub>	-50 to +175	°C	
T <sub>stg</sub>	-50 to +150	°C	

Electrical characteristics

Parameters	Symbol	Ratings	Conditions
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.85V	T <sub>c</sub> =25°C
Forward Voltage		0.75V	T <sub>c</sub> =125°C
Maximum Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	50µA	T <sub>c</sub> =25°C
		10mA	T <sub>c</sub> =125°C
Voltage Rate of Change	dv/dt	10,000 V/µs	Rated V <sub>R</sub>
Typical Thermal Resistance, Junction to Case	R <sub>th(j-c)</sub>	3.25 °C/W	Per diode

Note: (1)Pulse Test : 380µs pulse width, 2% duty cycle

**T0-220AB**

The diagram shows a top view and a side view of the T0-220AB package. Dimensions are labeled as follows: A (total height), B (width), C (height to mounting hole), D (height to top of package), E (height to top of leads), F (lead height), G (total lead length), H (lead width), I (lead thickness), J (lead diameter), K (terminal width), L (lead diameter), M (lead diameter), and N (lead diameter). A schematic below shows two diodes, A1 and A2, connected to a common terminal K.

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.579	.602	14.70	15.30	
B	.392	.411	9.95	10.45	
C	.104	.116	2.65	2.95	
D	.248	.264	6.30	6.70	
E	.325	.344	8.25	8.75	
F	.126	.138	3.20	3.50	
G	.524	.547	13.30	13.90	
H	.096	.108	2.45	2.75	
I	.030	.035	0.75	0.90	
J	.016	.022	0.40	0.55	
K	.146	.157	3.70	4.00	
L	.171	.187	4.35	4.75	
M	.049	.057	1.25	1.45	
N	.102	.114	2.60	2.90	

# MBR30100CT

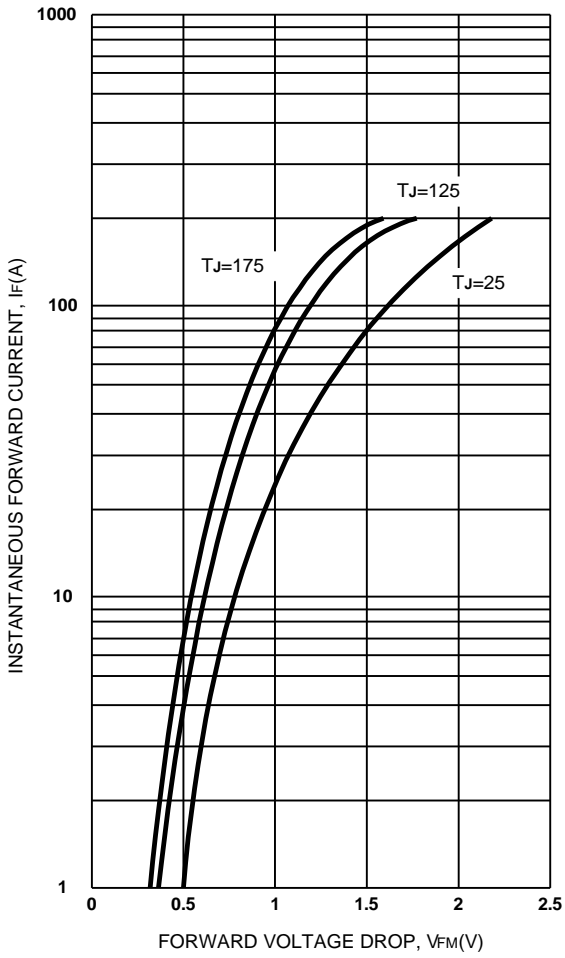


Figure 1. Max. Forward Voltage Drop Characteristics (PerLeg)

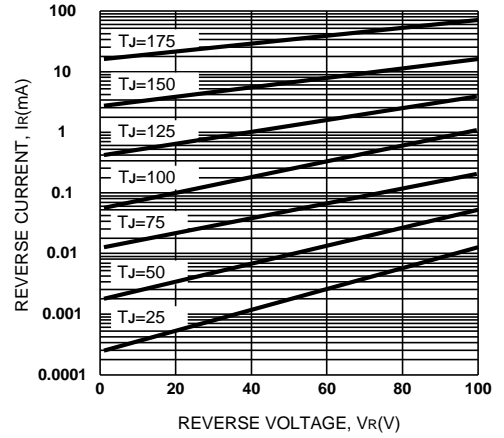


Figure 2. Typical Values Of Reverse Current Vs. Reverse Voltage (PerLeg)

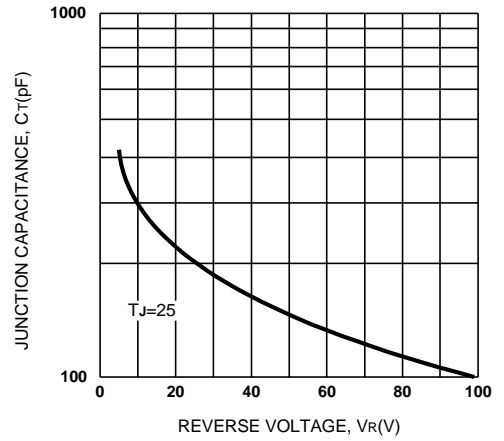


Figure 3. Typical Junction Capacitance Vs. Reverse Voltage (PerLeg)

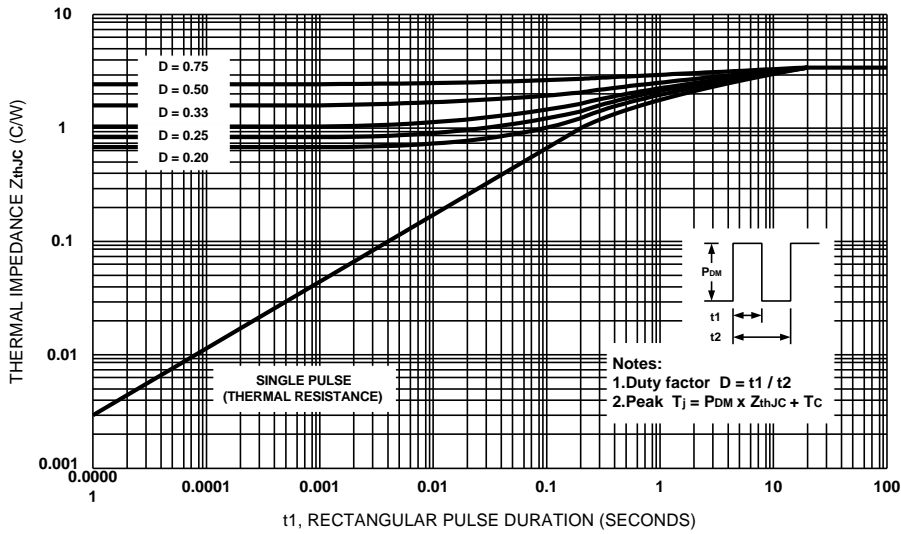
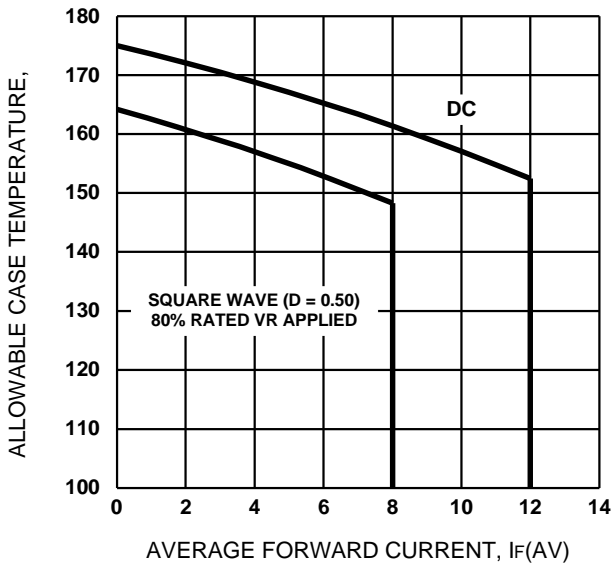
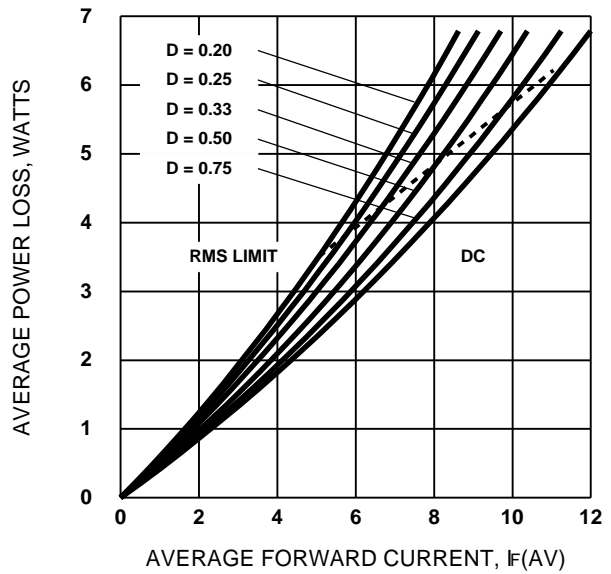


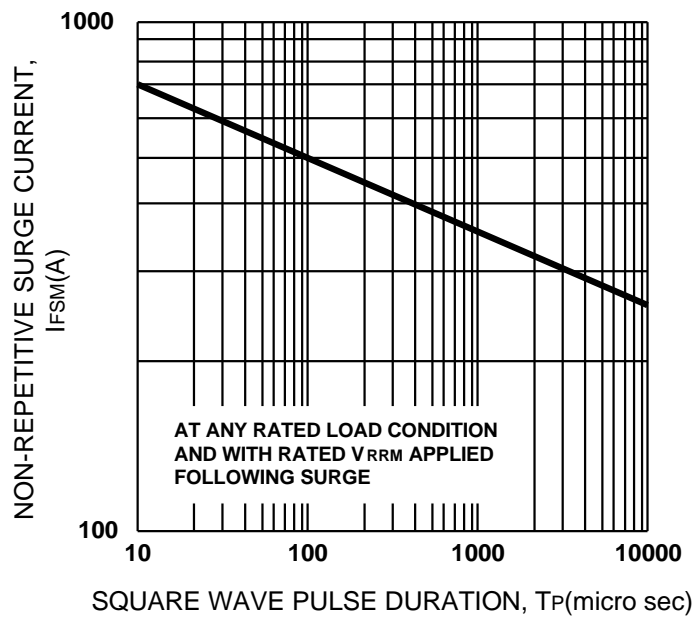
Figure 4. Max. Thermal Impedance  $Z_{thJC}$  Characteristics (PerLeg)



**Figure 5. Max. Allowable Case Temperature Vs. Average Forward Current (Per Leg)**



**Figure 6. Forward Power Loss Characteristics (Per Leg)**



**Figure 7. Max. Non-Repetitive Surge Current (Per Leg)**