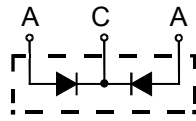


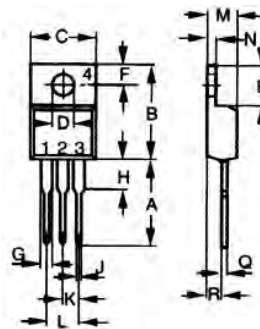
# MBR10150CT thru MBR10200CT

## High T<sub>jm</sub> Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AB



Dim.	Inches		Millimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.550	12.70	13.97
B	0.580	0.630	14.73	16.00
C	0.390	0.420	9.91	10.66
D	0.139	0.161	3.54	4.08
E	0.230	0.270	5.85	6.85
F	0.100	0.125	2.54	3.18
G	0.045	0.065	1.15	1.65
H	0.110	0.230	2.79	5.84
J	0.025	0.040	0.64	1.01
K	0.100	BSC	2.54	BSC
M	0.170	0.190	4.32	4.82
N	0.045	0.055	1.14	1.39
Q	0.014	0.022	0.35	0.56
R	0.090	0.110	2.29	2.79

	V <sub>RRM</sub>	V <sub>RMS</sub>	V <sub>DC</sub>
	V	V	V
<b>MBR10150CT</b>	150	105	150
<b>MBR10200CT</b>	200	140	200

Symbol	Characteristics	Maximum Ratings	Unit
I <sub>AV</sub>	Maximum Average Forward Rectified Current @T <sub>c</sub> =120°C	10	A
I <sub>FSM</sub>	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	120	A
dv/dt	Voltage Rate Of Change (Rated V <sub>R</sub> )	10000	V/us
V <sub>F</sub>	Maximum Forward Voltage (Note 1) I <sub>F</sub> =5A @T <sub>J</sub> =25°C I <sub>F</sub> =5A @T <sub>J</sub> =125°C I <sub>F</sub> =10A @T <sub>J</sub> =25°C I <sub>F</sub> =10A @T <sub>J</sub> =125°C	0.95 - 0.95 0.80	V
I <sub>R</sub>	Maximum DC Reverse Current At Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =125°C	0.05 15	mA
R <sub>θJC</sub>	Typical Thermal Resistance (Note 2)	4.5	°C/W
T <sub>J</sub>	Operating Temperature Range	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to +150	°C

- NOTES: 1. 300us Pulse Width, Duty Cycle 2%.  
2. Thermal Resistance Junction To Case.  
3. Measured At 1.0MHz And Applied Reverse Voltage Of 4.0V DC.

### FEATURES

- \* Metal of silicon rectifier, majority carrier conduction
- \* Guard ring for transient protection
- \* Low power loss, high efficiency
- \* High current capability, low V<sub>F</sub>
- \* High surge capacity
- \* For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- \* RoHS compliant

### MECHANICAL DATA

- \* Case: TO-220AB molded plastic
- \* Polarity: As marked on the body
- \* Weight: 2 grams
- \* Mounting position: Any



# MBR10150CT thru MBR10200CT

## High Tjm Low IRRM Schottky Barrier Diodes

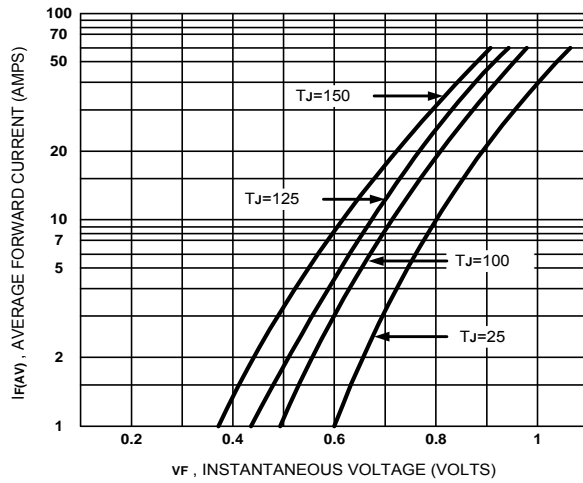


Figure 1. Typical Forward Voltage (Per Leg)

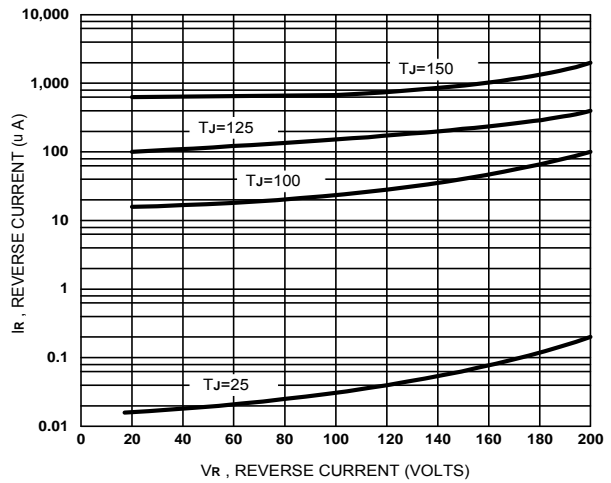


Figure 2. Typical Reverse Current (Per Leg)

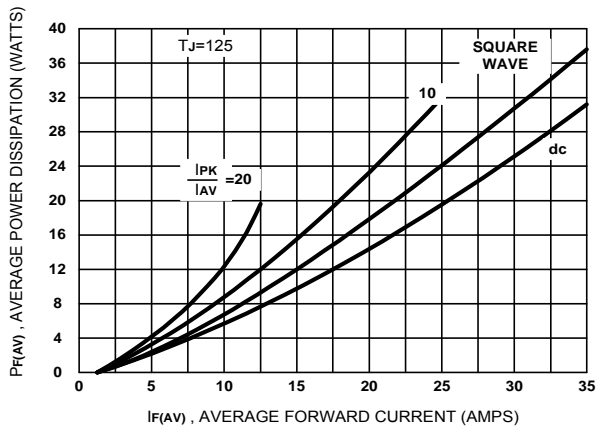


Figure 3. Forward Power Dissipation

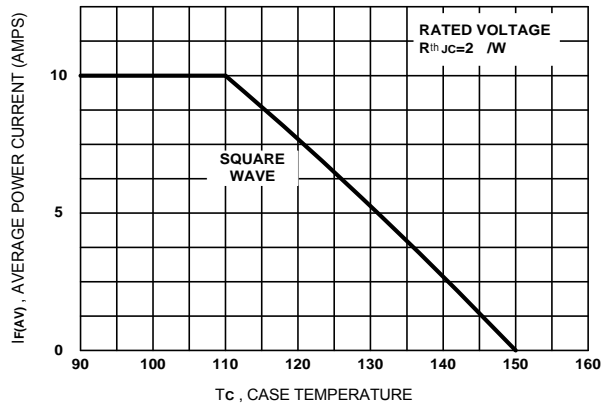


Figure 4. Forward Current Derating, Case

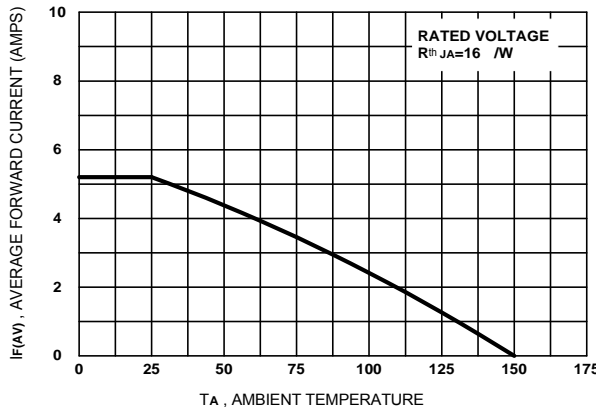


Figure 5. Current Derating, Ambient

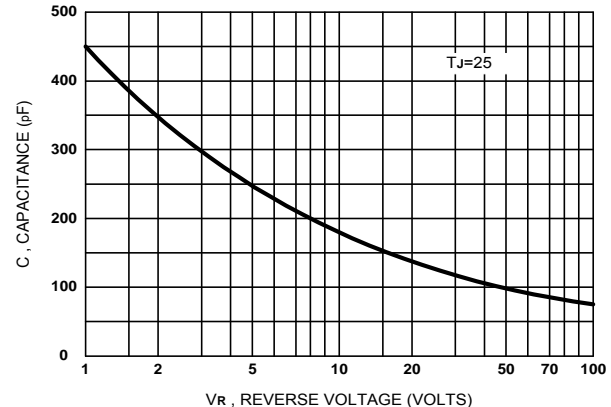


Figure 6. Typical Capacitance (Per Leg)

