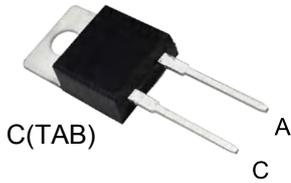
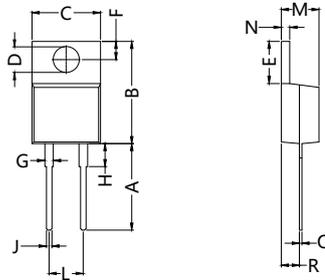


MBR580 thru MBR5100

High Tjm Low IRRM Schottky Barrier Diodes



Dimensions TO-220AC



Dim.	Millimeter	
	Min.	Max.
A	12.70	13.97
B	14.73	16.00
C	9.91	10.66
ØD	3.54	4.08
E	5.85	6.85
F	2.54	3.18
G	1.15	1.65
H	2.79	5.84
J	0.64	1.01
L	5.05BSC	
M	4.32	4.82
N	1.14	1.39
Q	0.35	0.56
R	2.29	2.79

A=Anode, C=Cathode, TAB=Cathode

	V _{RRM} V	V _{RMS} V	V _{DC} V
MBR580	80	56	80
MBR5100	100	70	100



Symbol	Characteristics	Maximum Ratings	Unit
I <sub(av)< sub=""></sub(av)<>	Maximum Average Forward Rectified Current @T _c =125°C	5	A
I _{FSM}	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 _R)	10000	V/us
V _F	Maximum Forward Voltage (Note 1) I _F =5A @T _J =25°C I _F =5A @T _J =125°C	0.85 0.75	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T _J =25°C @T _J =125°C	0.05 10	mA
R _{θJC}	Typical Thermal Resistance (Note 2)	-	°C/W
C _J	Typical Junction Capacitance (Note 3)	400	pF
T _J	Operating Temperature Range	-50 to +150	°C
T _{STG}	Storage Temperature Range	-50 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_F
- * High surge capacity
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

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

MBR580 thru MBR5100

High T_{jm} Low IRRM Schottky Barrier Diodes

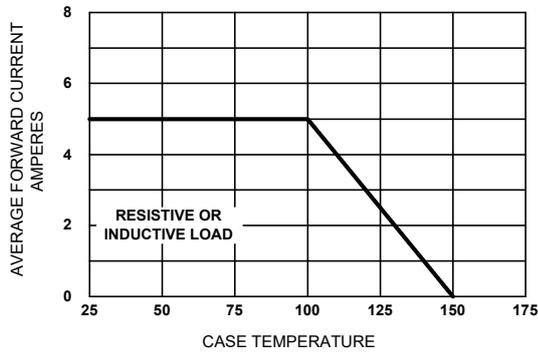


Figure 1. Forward Current Derating Curve

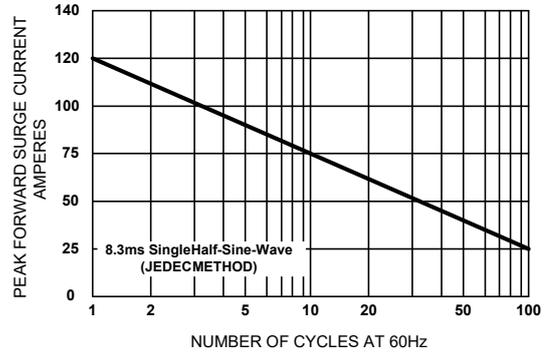


Figure 2. Maximum Non-repetitive Surge Current

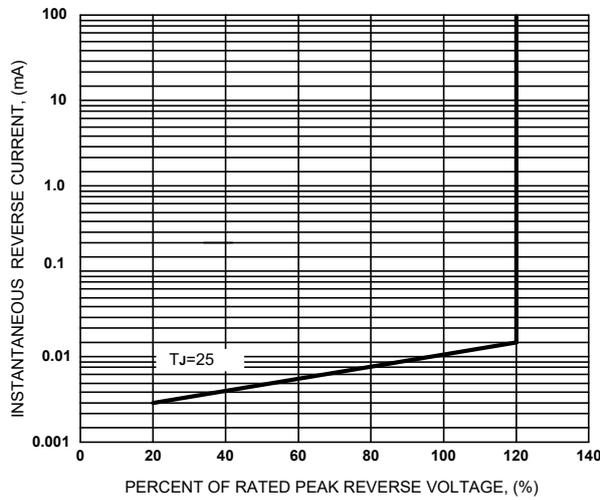


Figure 3. Typical Reverse Characteristics

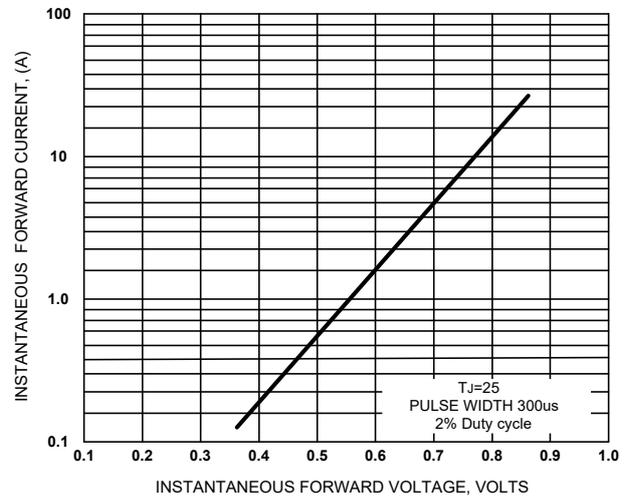


Figure 4. Typical Forward Characteristics

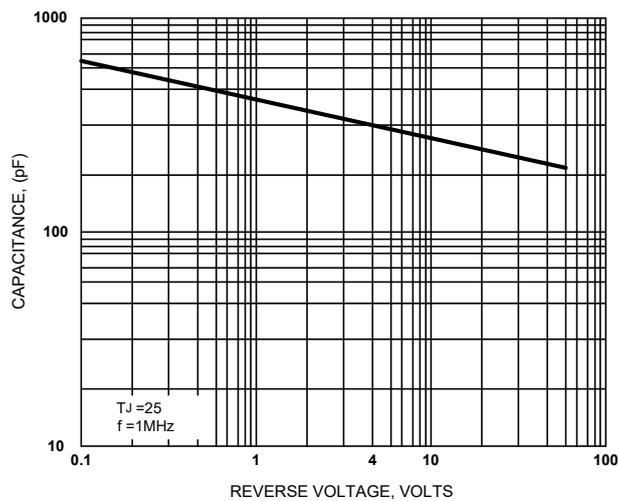


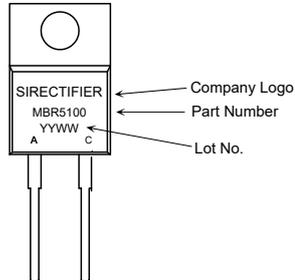
Figure 5. Typical Junction Capacitance



MBR580 thru MBR5100

High T_{jm} Low IRRM Schottky Barrier Diodes

Marking



Ordering Information

Part Number	Package	Shipping	Marking Code
MBR580	TO-220AC	50pcs / Tube	MBR580
MBR5100	TO-220AC	50pcs / Tube	MBR5100