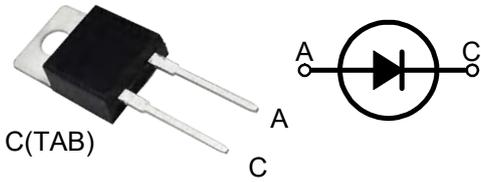


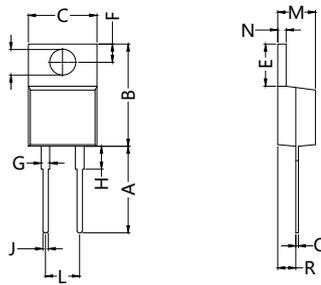
MBR870 thru MBR8100

High Tjm Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AC



Dim.	Millimeter	
	Min.	Max.
A	12.70	13.97
B	14.73	16.00
C	9.91	10.66
∅D	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



	V _{RRM} V	V _{RMS} V	V _{DC} V
MBR870	70	49	70
MBR880	80	56	80
MBR890	90	63	90
MBR8100	100	70	100

Symbol	Characteristics	Maximum Ratings	Unit
I <sub(av)< sub=""></sub(av)<>	Maximum Average Forward Rectified Current @T _c =110°C	8	A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	125	A
dv/dt	Voltage Rate Of Change (Rated V _R)	10000	V/us
V _F	Maximum Forward Voltage (Note 1)	I _F =8A @T _J =25°C 0.85 I _F =8A @T _J =125°C 0.75 I _F =16A @T _J =25°C 0.95 I _F =16A @T _J =125°C 0.85	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage	@T _J =25°C 0.1 @T _J =125°C 7	mA
R _{θJC}	Typical Thermal Resistance (Note 2)	2.0	°C/W
C _J	Typical Junction Capacitance (Note 3)	280	pF
T _J	Operating Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +175	°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 conducton
- * 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 whelling, and polarity protection applications
- * RoHS compliance

MECHANICAL DATA

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



MBR870 thru MBR8100

High T_{jm} Low IRRM Schottky Barrier Diodes

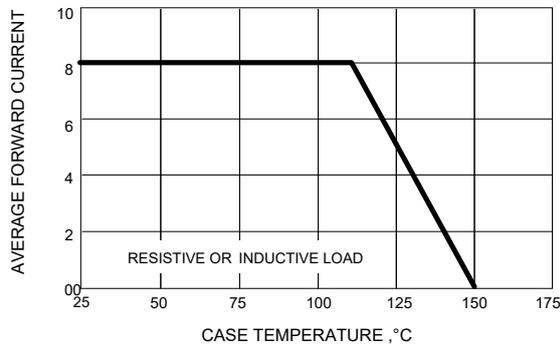


FIG.1 - FORWARD CURRENT DERATING CURVE

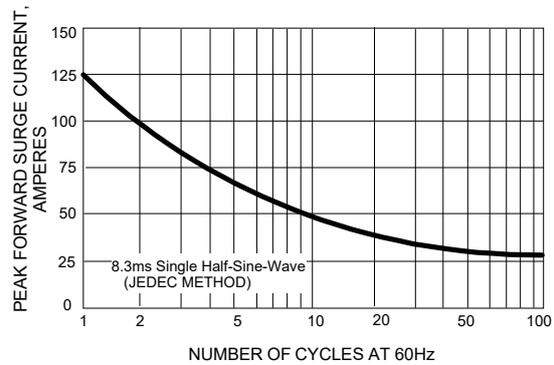


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

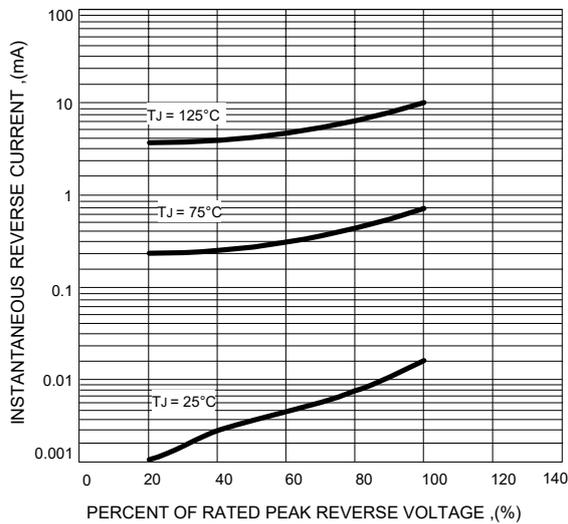


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

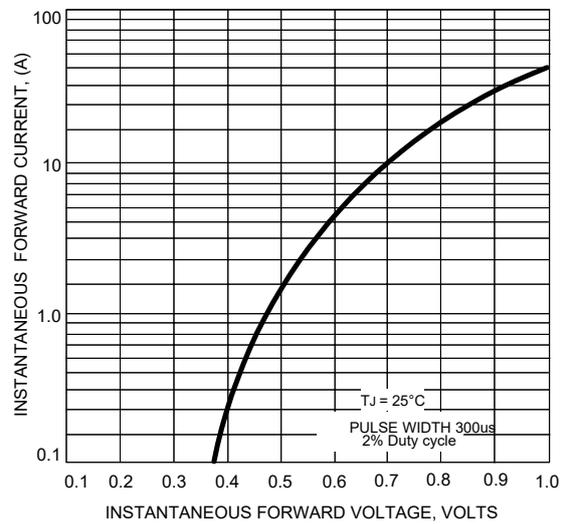


FIG.4 - Typical Forward Characteristics

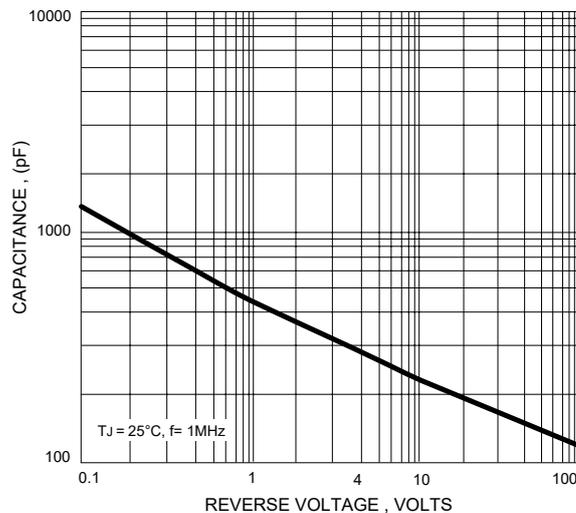
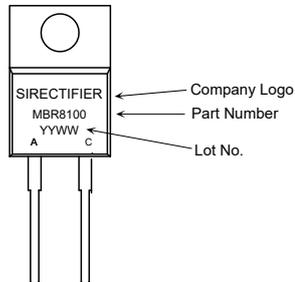


FIG.5 - TYPICAL JUNCTION CAPACITANCE

MBR870 thru MBR8100

High Tjm Low IRRM Schottky Barrier Diodes

Marking



Ordering Information

Part Number	Package	Shipping	Marking Code
MBR870	TO-220AC	50pcs / Tube	MBR870
MBR8100	TO-220AC	50pcs / Tube	MBR8100