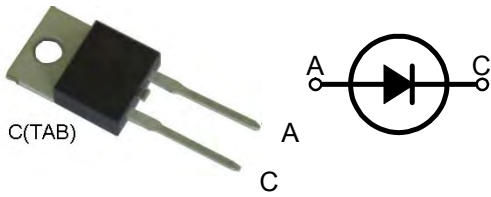


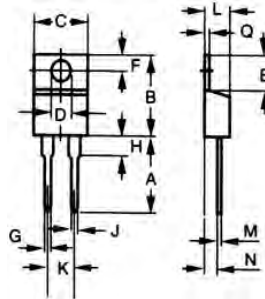
MBR870 thru MBR8100

High T_{jm} Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AC



Dim.	Inches		Millimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.580	12.70	14.73
B	0.560	0.650	14.23	16.51
C	0.380	0.420	9.66	10.66
D	0.139	0.161	3.54	4.08
E	2.300	0.420	5.85	6.85
F	0.100	0.135	2.54	3.42
G	0.045	0.070	1.15	1.77
H	-	0.250	-	6.35
J	0.025	0.035	0.64	0.89
K	0.190	0.210	4.83	5.33
L	0.140	0.190	3.56	4.82
M	0.015	0.022	0.38	0.56
N	0.080	0.115	2.04	2.49
Q	0.025	0.055	0.64	1.39

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

Symbol	Characteristics	Maximum Ratings	Unit
I _{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 I _F =8A @T _J =125°C I _F =16A @T _J =25°C I _F =16A @T _J =125°C	0.85 0.75 0.95 0.85	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T _J =25°C @T _J =125°C	0.1 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 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
- * RoHS compliant

MECHANICAL DATA

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

Sirectifier®

MBR870 thru MBR8100

High T_{jm} Low IRRM Schottky Barrier Diodes

FIG.1 - FORWARD CURRENT DERATING CURVE

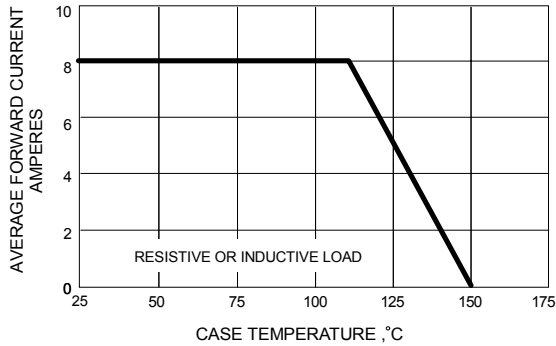


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

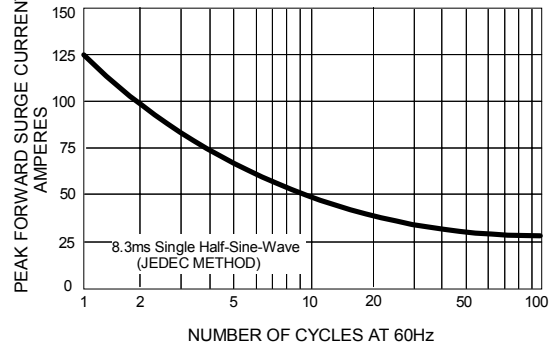


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

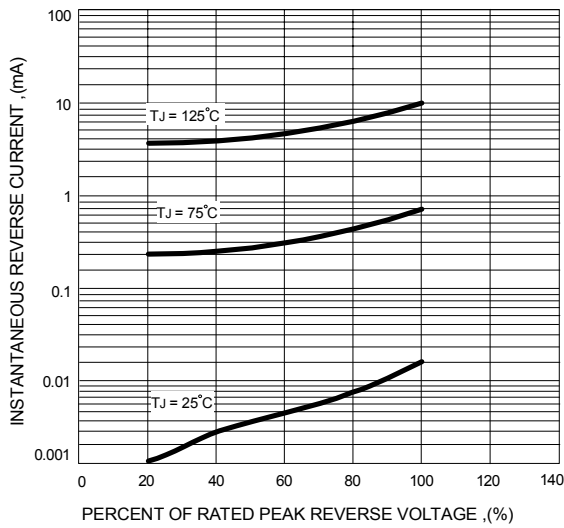


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

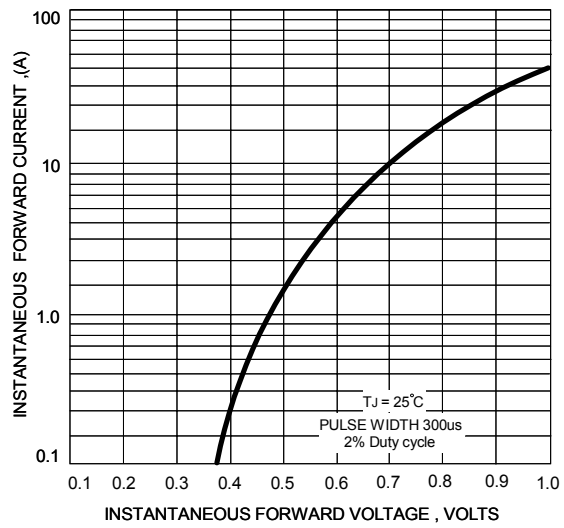


FIG.5 - TYPICAL JUNCTION CAPACITANCE

