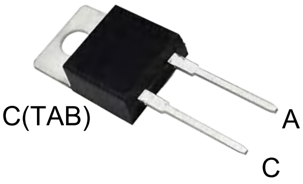
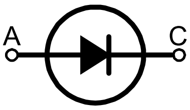
MBR850 thru MBR860

High Tjm Low IRRM Schottky Barrier Diodes

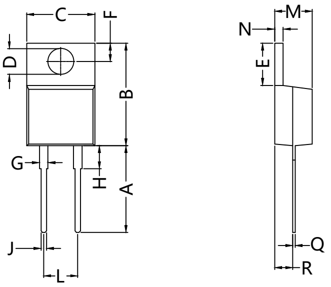




A=Anode, C=Cathode, TAB=Cathode

	V_{RRM} V	V_{RMS} V	V_{DC} V
MBR850	50	35	50
MBR860	60	42	60

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

Symbol	Characteristics	Maximum Ratings	Unit
$I_{(AV)}$	Maximum Average Forward Rectified Current @T_C=125 °C	8	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	150	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=125°C I_F=8A @T_J=25°C I_F=16A @T_J=25°C	0.70 0.80 0.95	V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T_J=25°C @T_J=125°C	0.1 15	mA
$R_{\theta JC}$	Typical Thermal Resistance (Note 2)	3.0	C/W
C_J	Typical Junction Capacitance (Note 3)	250	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

MBR850 thru MBR860

High Tjm Low IRRM Schottky Barrier Diodes

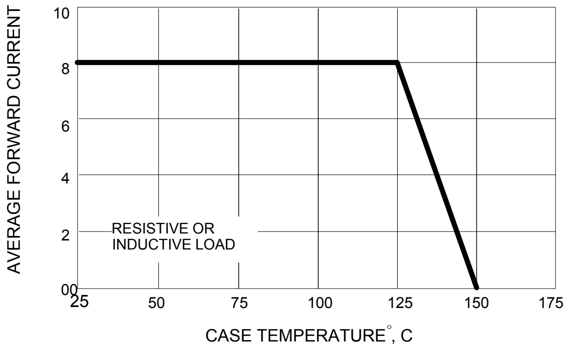


FIG.1 - FORWARD CURRENT DERATING CURVE

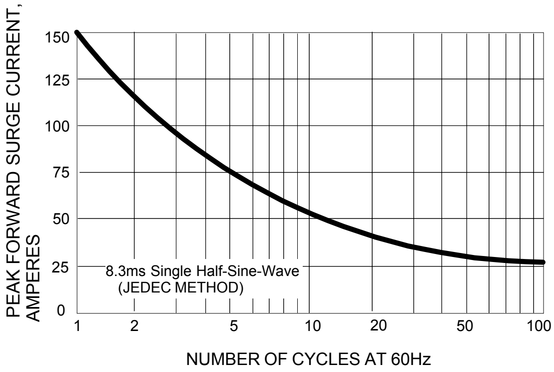


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

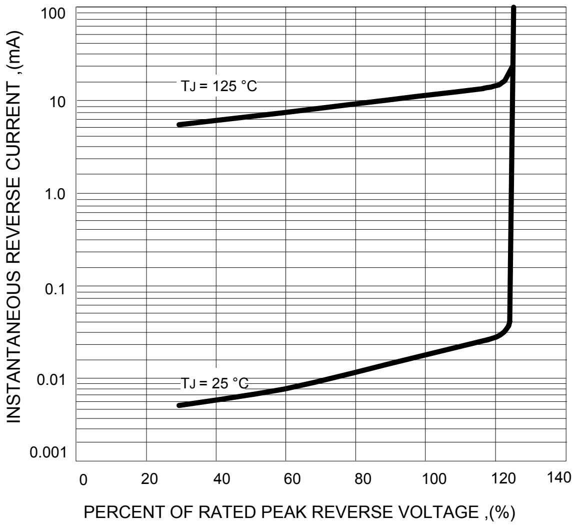


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

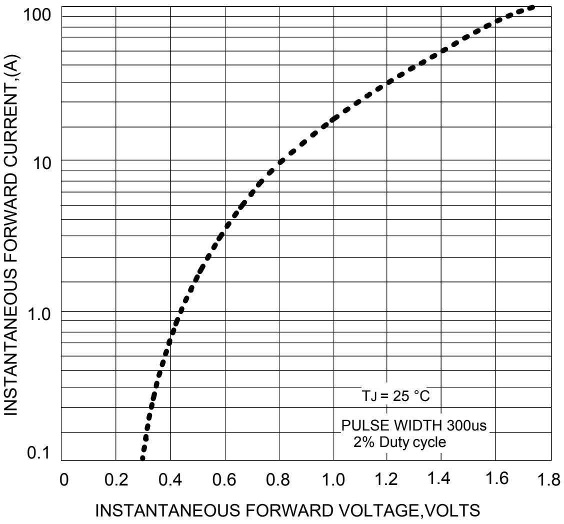


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

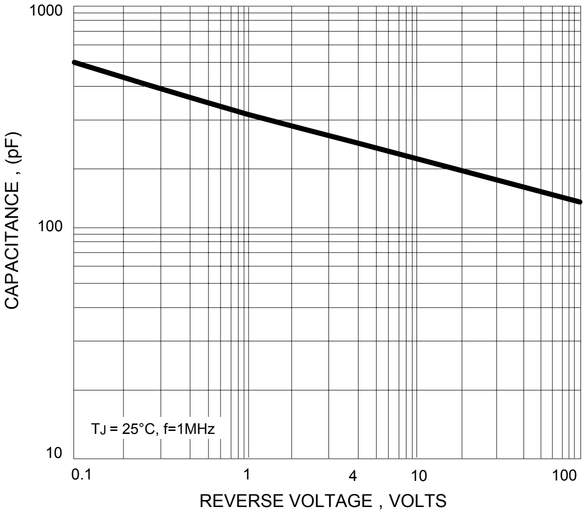
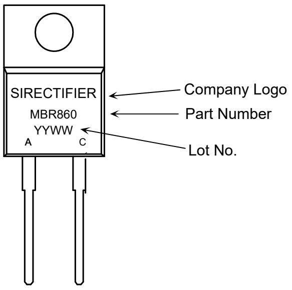


FIG.5 - TYPICAL JUNCTION CAPACITANCE

Marking



Ordering Information

Part Number	Package	Shipping	Marking Code
MBR850	TO-220AC	50pcs / Tube	MBR850
MBR860	TO-220AC	50pcs / Tube	MBR860