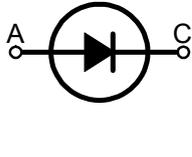
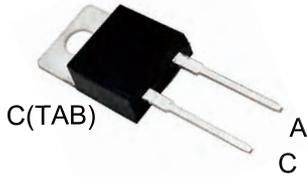


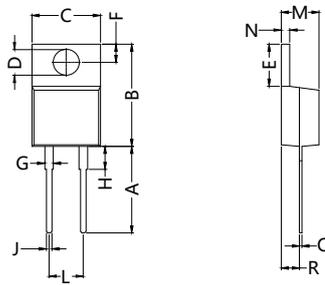
MBR1030 thru MBR1045

High T_{jm} 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
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



	V _{RRM} V	V _{RMS} V	V _{DC} V
MBR1030	30	21	30
MBR1035	35	24.5	35
MBR1040	40	28	40
MBR1045	45	31.5	45

Symbol	Characteristics	Maximum Ratings	Unit
I <sub(av)< sub=""></sub(av)<>	Maximum Average Forward Rectified Current @T _c =125°C	10	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 I _F =20A @T _J =25°C I _F =20A @T _J =125°C	0.84 0.57	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 _{θJC}	Typical Thermal Resistance (Note 1)	2.5	°C/W
C _J	Typical Junction Capacitance (Note 2)	400	pF
T _J	Operating Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +175	°C

NOTES: 1. Thermal Resistance Junction To Case.

2. 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 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

MBR1030 thru MBR1045

High T_{jm} Low IRRM Schottky Barrier Diodes

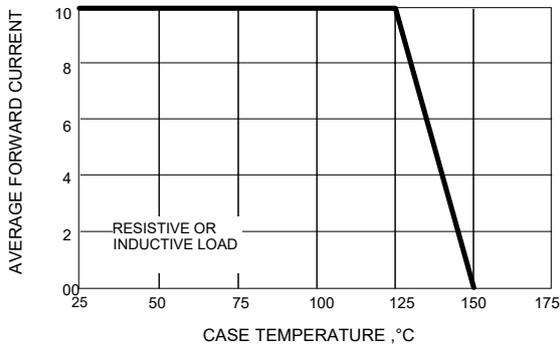


FIG. 1 - FORWARD CURRENT DERATING CURVE

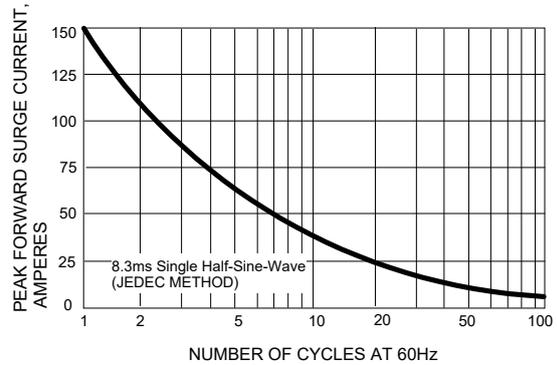


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

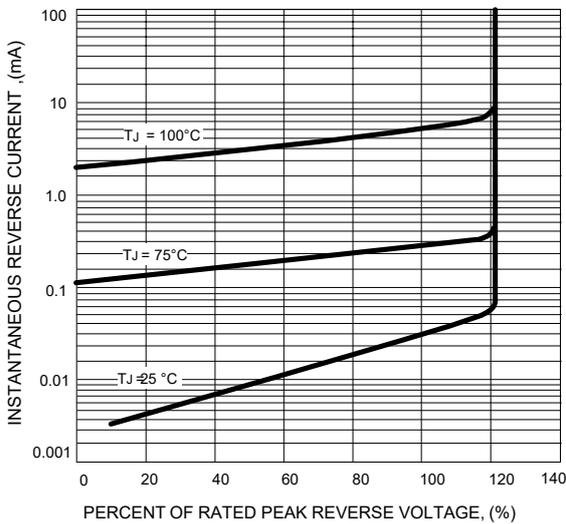


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

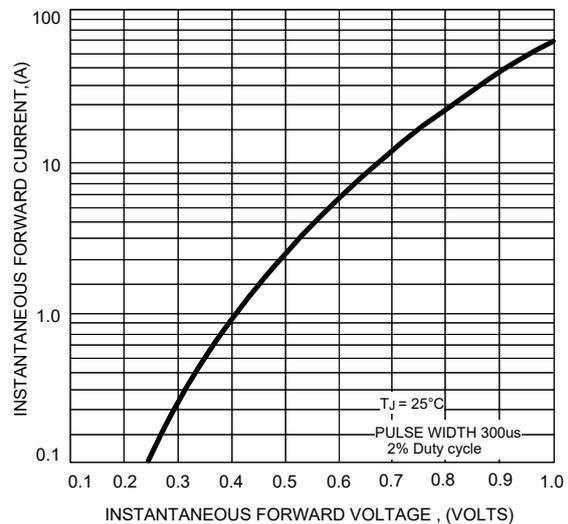


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

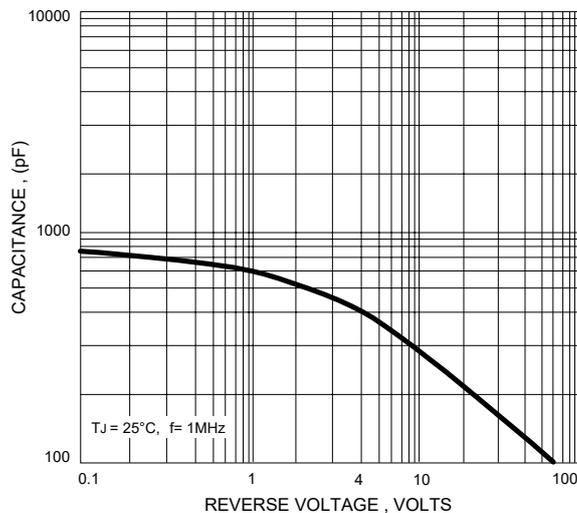
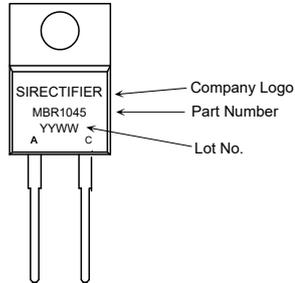


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

MBR1030 thru MBR1045

High Tj_m Low IRRM Schottky Barrier Diodes

Marking



Ordering Information

Part Number	Package	Shipping	Marking Code
MBR1030	TO-220AC	50pcs / Tube	MBR1030
MBR1045	TO-220AC	50pcs / Tube	MBR1045