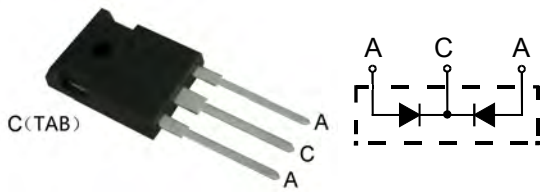


MBR4030PT thru MBR4045PT

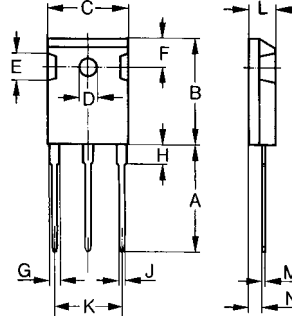
High T_{jm} Low IRRM Schottky Barrier Diodes



A=Anode, C=Cathode, TAB=Cathode

	V _{RRM} V	V _{RMS} V	V _{DC} V
MBR4030PT	30	21	30
MBR4035PT	35	24.5	35
MBR4040PT	40	28	40
MBR4045PT	45	31.5	45

Dimensions TO-247AD



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	19.81	20.32	0.780	0.800
B	20.80	21.46	0.819	0.845
C	15.75	16.26	0.610	0.640
D	3.55	3.65	0.140	0.144
E	4.32	5.49	0.170	0.216
F	5.4	6.2	0.212	0.244
G	1.65	2.13	0.065	0.084
H	-	4.5	-	0.177
J	1.0	1.4	0.040	0.055
K	10.8	11.0	0.426	0.433
L	4.7	5.3	0.185	0.209
M	0.4	0.8	0.016	0.031
N	1.5	2.49	0.087	0.102

Symbol	Characteristics	Maximum Ratings	Unit
I _{AV}	Maximum Average Forward Rectified Current @T _C =125°C	40	A
I _{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	400	A
dv/dt	Voltage Rate Of Change (Rated V _R)	10000	V/us
V _F	Maximum Forward Voltage (Note 1) I _F =20A @T _J =25°C I _F =20A @T _J =125°C I _F =40A @T _J =25°C I _F =40A @T _J =125°C	0.70 0.60 0.80 0.75	V
I _R	Maximum DC Reverse Current At Rated DC Blocking Voltage @T _J =25°C @T _J =125°C	1.0 100	mA
R _{θJC}	Typical Thermal Resistance (Note 2)	1.4	°C/W
C _J	Typical Junction Capacitance Per Element (Note 3)	700	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-247AD molded plastic
- * Polarity: As marked on the body
- * Weight: 6 grams
- * Mounting position: Any

Sirectifier®

MBR4030PT thru MBR4045PT

High T_{jm} Low IRRM Schottky Barrier Diodes

FIG.1 - FORWARD CURRENT DERATING CURVE

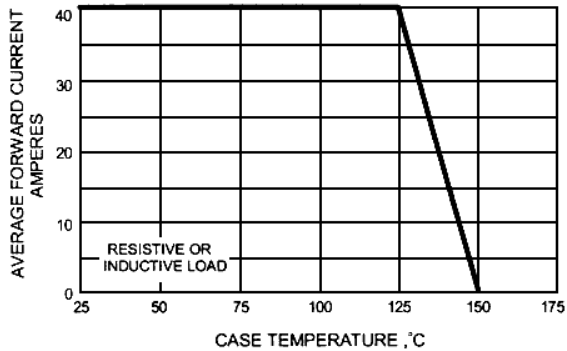


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

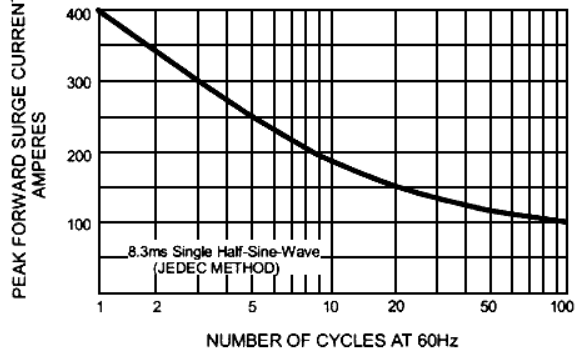


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

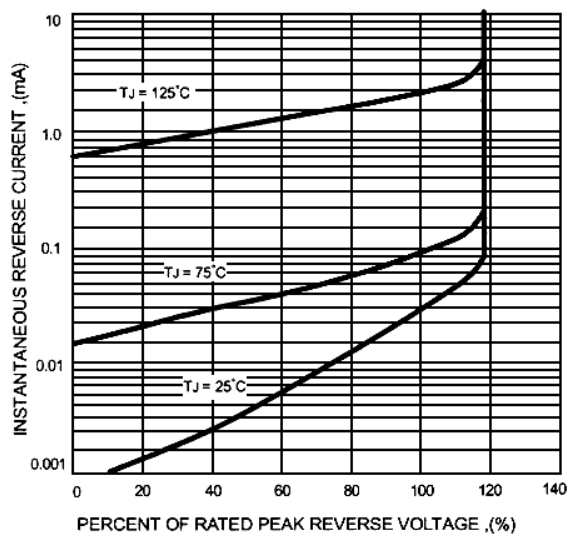


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

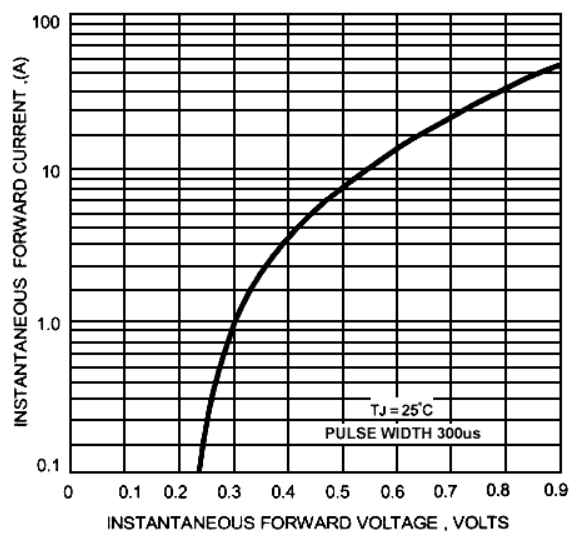
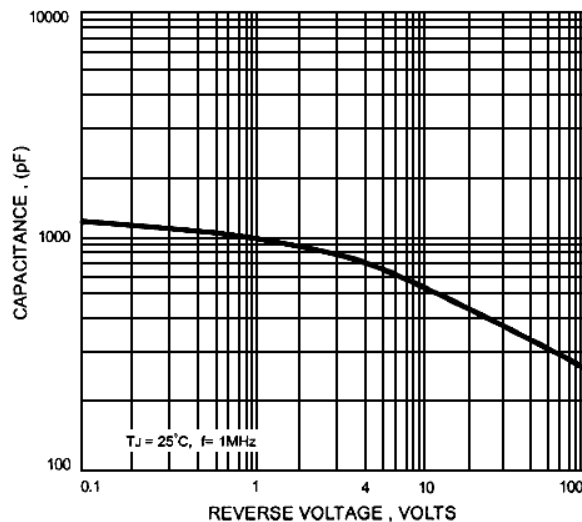


FIG.5 - TYPICAL JUNCTION CAPACITANCE



Sirectifier®