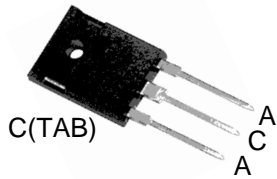


MBR3030PT thru MBR3045PT

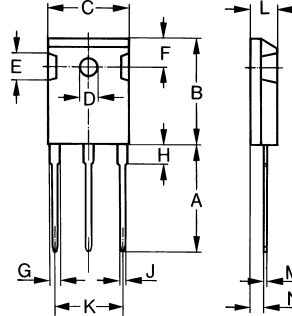
Wide Temperature Range and High T_{jm} Schottky Barrier Rectifiers



A=Anode, C=Cathode, TAB=Cathode

	V_{RRM}	V_{RMS}	V_{DC}
	V	V	V
MBR3030PT	30	21	30
MBR3035PT	35	24.5	35
MBR3040PT	40	28	40
MBR3045PT	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 @ $T_c=125^\circ\text{C}$	30	A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed On Rated Load (JEDEC METHOD)	200	A
dv/dt	Voltage Rate Of Change (Rated V_R)	10000	V/us
V_F	Maximum Forward Voltage (Note 1) $I_F=20\text{A}$ @ $T_J=25^\circ\text{C}$ $I_F=20\text{A}$ @ $T_J=125^\circ\text{C}$ $I_F=30\text{A}$ @ $T_J=25^\circ\text{C}$ $I_F=30\text{A}$ @ $T_J=125^\circ\text{C}$	- 0.60 0.76 0.72	V
I_R	Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=125^\circ\text{C}$	1 60	mA
$R_{\theta JC}$	Typical Thermal Resistance (Note 2)	1.4	$^\circ\text{C/W}$
C_J	Typical Junction Capacitance Per Element (Note 3)	500	pF
T_J	Operating Temperature Range	-55 to +150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +175	$^\circ\text{C}$

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

MECHANICAL DATA

- * Case: TO-247AD molded plastic
- * Polarity: As marked on the body
- * Weight: 0.2 ounces, 5.6 grams
- * Mounting position: Any

Sirectifier®

MBR3030PT thru MBR3045PT

Wide Temperature Range and High T_{jm} Schottky Barrier Rectifiers

FIG.1 - FORWARD CURRENT DERATING CURVE

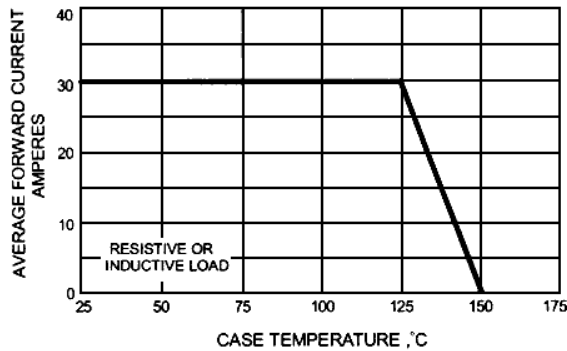


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

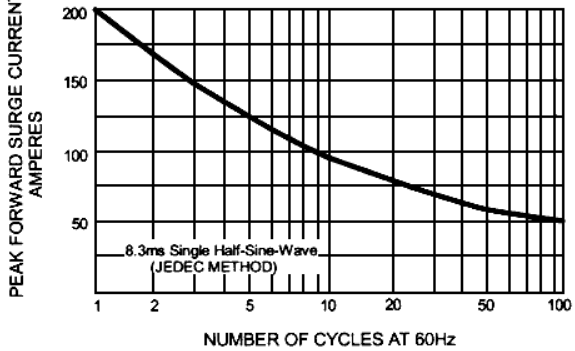


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

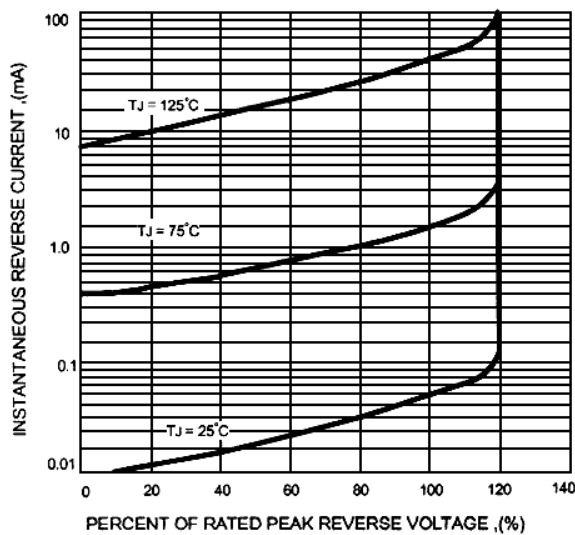


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

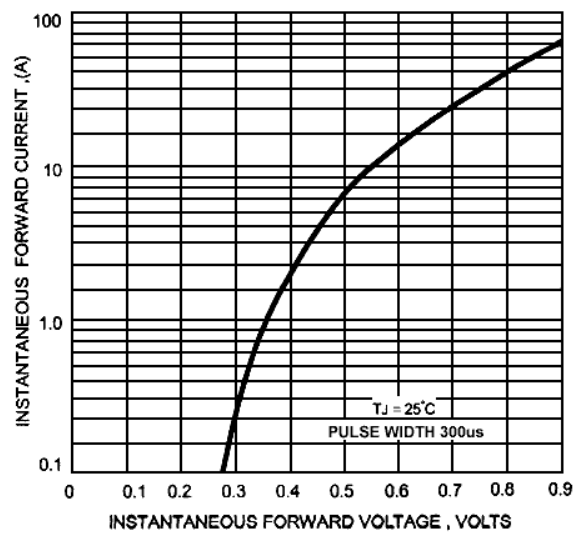


FIG.5 - TYPICAL JUNCTION CAPACITANCE

