

**MBR3035PT
MBR3045PT**

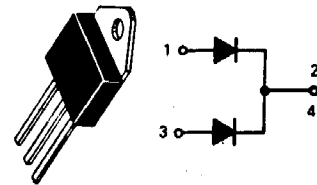
**SCHOTTKY BARRIER
RECTIFIERS**

**30 AMPERES
35 TO 45 VOLTS**

SWITCHMODE POWER RECTIFIERS

... using the Schottky Barrier principle with a platinum barrier metal. These state-of-the-art devices have the following features:

- Dual Diode Construction — Terminals 1 and 3 May Be Connected For Parallel Operation At Full Rating
- Guardring For Stress Protection
- Low Forward Voltage
- 150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche



RATINGS

Rating	Symbol	Maximum	Unit
Peak Repetitive Reverse Voltage	MBR3035PT VRRM	35	Volts
Working Peak Reverse Voltage	MBR3045PT VRWM	45	
DC Blocking Voltage	VR		
Average Rectified Forward Current (Rated V_R , $T_C = 105^\circ\text{C}$)	Per Device $I_{F(AV)}$ Per Diode	30 15	Amps
Peak Repetitive Forward Current, Per Diode (Rated V_R , Square Wave, 20 kHz)	I_{FRM}	30	Amps
Nonrepetitive Peak Surge Current (Surge Applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	200	Amps
Peak Repetitive Reverse Current, Per Diode (2.0 μs , 1.0 kHz) See Figure 6	I_{RRM}	2.0	Amps
Operating Junction Temperature	T_J	-65 to +150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +175	$^\circ\text{C}$
Peak Surge Junction Temperature (Forward Current Applied)	$T_{J(pk)}$	175	$^\circ\text{C}$
Voltage Rate of Change (Rated V_R)	dv/dt	1000	$\text{V}/\mu\text{s}$

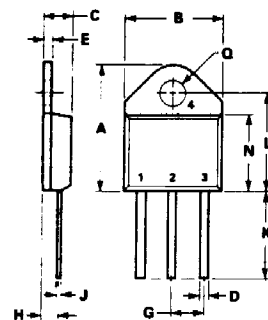
THERMAL CHARACTERISTICS PER DIODE

Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.4	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	40	$^\circ\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS PER DIODE

Instantaneous Forward Voltage (1) ($i_F = 20$ Amp, $T_C = 125^\circ\text{C}$) ($i_F = 30$ Amp, $T_C = 125^\circ\text{C}$) ($i_F = 30$ Amp, $T_C = 25^\circ\text{C}$)	V_F	0.60 0.72 0.76	Volts
Instantaneous Reverse Current (1) (Rated dc Voltage, $T_C = 125^\circ\text{C}$) (Rated dc Voltage, $T_C = 25^\circ\text{C}$)	I_R	100 1.0	mA

(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982
2. CONTROLLING DIMENSION: INCH.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	20.32	21.08	0.800	0.830
B	15.49	15.90	0.610	0.626
C	4.19	5.08	0.165	0.200
D	1.02	1.65	0.040	0.065
E	1.35	1.65	0.053	0.065
G	5.21	5.72	0.205	0.225
H	2.65	2.94	0.104	0.116
J	0.38	0.64	0.015	0.025
K	12.70	15.49	0.500	0.610
L	15.88	16.51	0.625	0.650
N	12.19	12.70	0.480	0.500
Q	4.04	4.22	0.159	0.166

**TO-218AC
PLASTIC**

