

MBR3035PT ~ MBR3060PT

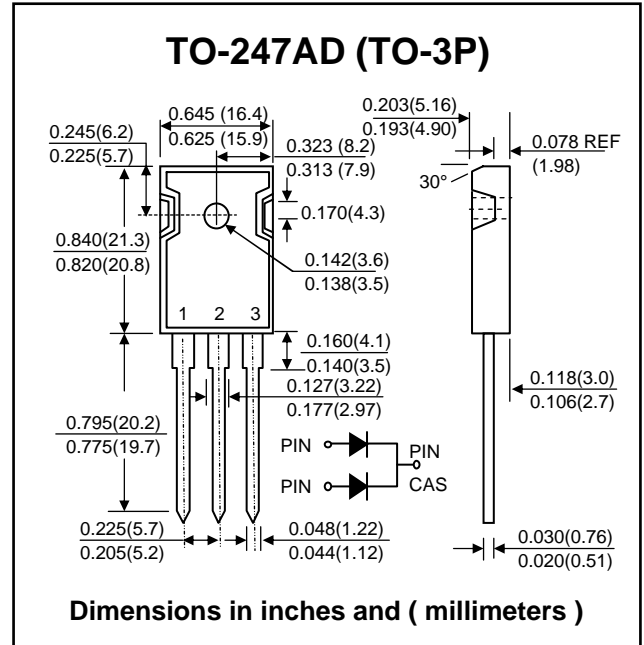
DUAL SCHOTTKY BARRIER RECTIFIERS

PRV : 35 ~ 60 Volts

Io : 30 Amperes

FEATURES :

- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- * Dual rectifier construction, positive center tap
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * High current capability, low forward voltage drop
- * High surge capability
- * Guardring for overvoltage protection
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- * High temperature soldering : 250°C/10 seconds, 0.25" (6.35mm) from case
- * **Pb / RoHS Free**



MECHANICAL DATA :

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

RATINGS	SYMBOL	MBR 3035PT	MBR 3045PT	MBR 3050PT	MBR 3060PT	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	35	45	50	60	V
Maximum Working Peak Reverse Voltage	V_{RWM}	35	45	50	60	V
Maximum DC Blocking Voltage	V_{DC}	35	45	50	60	V
Maximum Average Forward Rectified Current (See Fig.1)	$I_{F(AV)}$	30				A
Peak Forward Surg Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200				A
Maximum Instantaneous Forward Voltage per leg (Note 1) at $I_F = 20$ A, $T_C = 25$ °C	V_F	-		0.75		V
at $I_F = 20$ A, $T_C = 125$ °C		0.60		0.65		
at $I_F = 30$ A, $T_C = 25$ °C		0.76		-		
at $I_F = 30$ A, $T_C = 125$ °C		0.72		-		
Maximum Reverse Current at Rated DC Blocking Voltage per leg (Note 1) $T_C = 25$ °C	I_R	1.0		5.0		mA
$T_C = 125$ °C	$I_{R(H)}$	60		100		
Typical Thermal Resistance (Junction to Case)	$R_{\theta JC}$	1.4				°C/W
Operating Junction Temperature Range	T_J	-65 to + 150				°C
Storage Temperature Range	T_{STG}	-65 to + 175				°C

Note : (1) Pulse test : 300 μ s pluse width, 1% duty cycle

RATING AND CHARACTERISTIC CURVES (MBR3035PT ~ MBR3060PT)

FIG.1 - FORWARD CURRENT DERATING CURVE

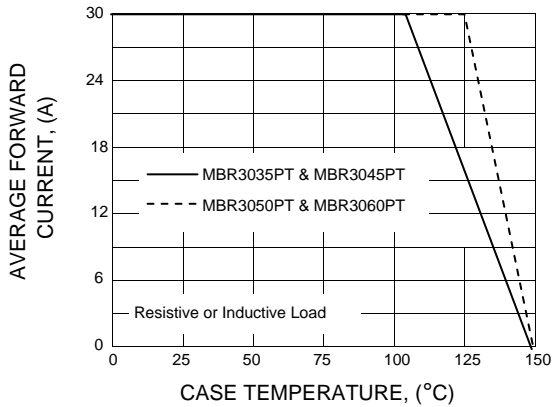


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

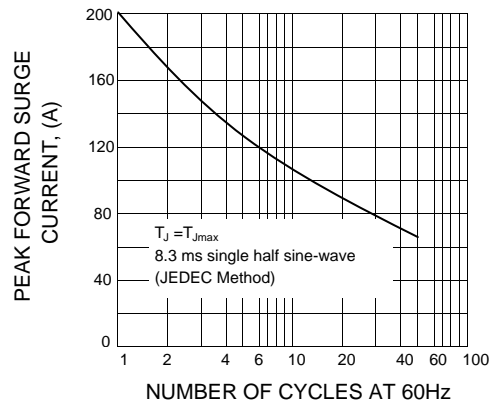


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

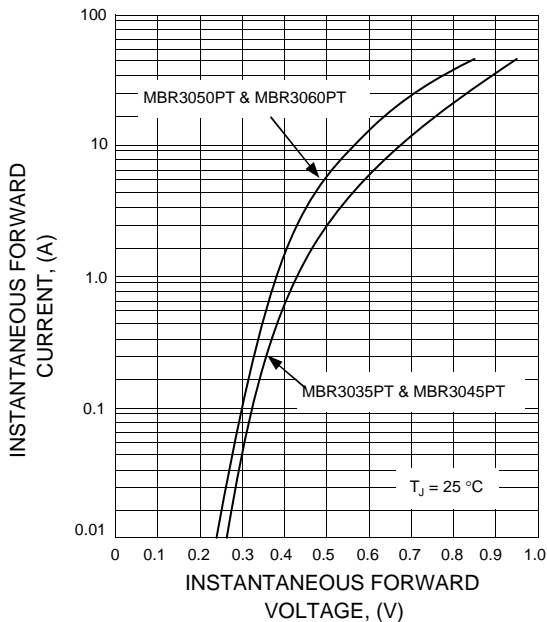


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

