

# MBR3035PT ~ MBR3060PT

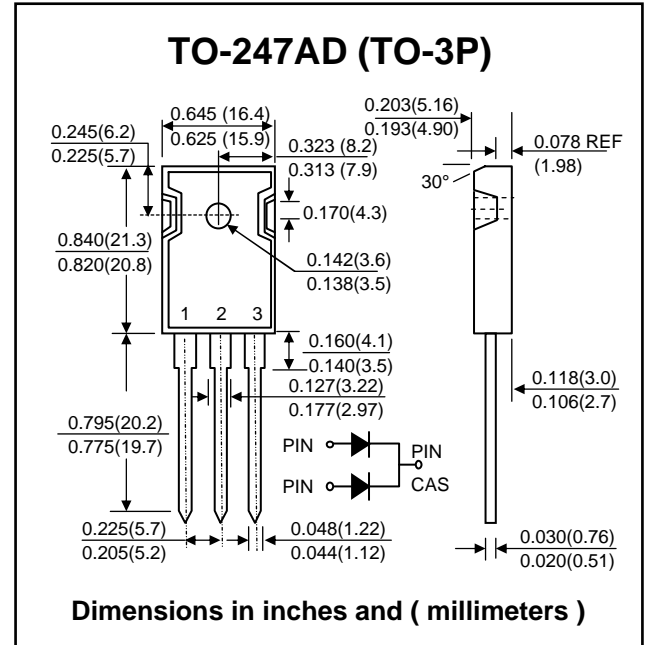
# DUAL SCHOTTKY BARRIER RECTIFIERS

**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

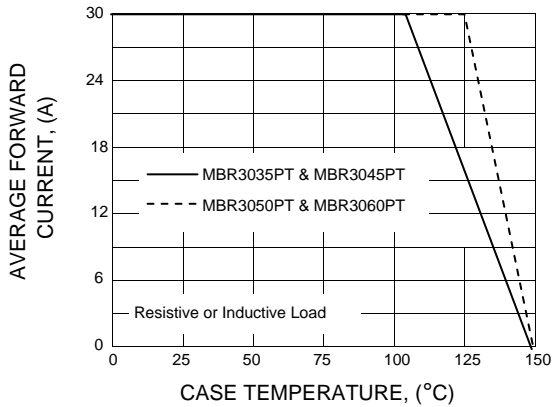
Rating at 25°C ambient temperature unless otherwise specified

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

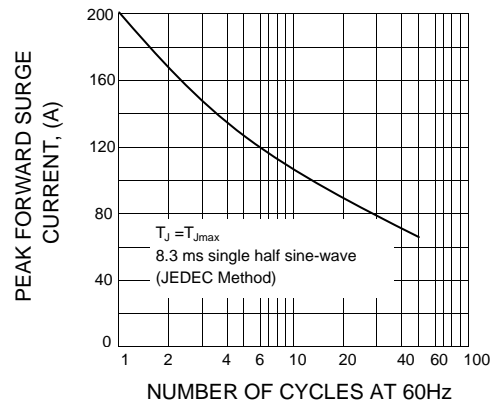
**Note :** (1) Pulse test : 300  $\mu$ s pluse width, 1% duty cycle

**RATING AND CHARACTERISTIC CURVES ( MBR3035PT ~ MBR3060PT )**

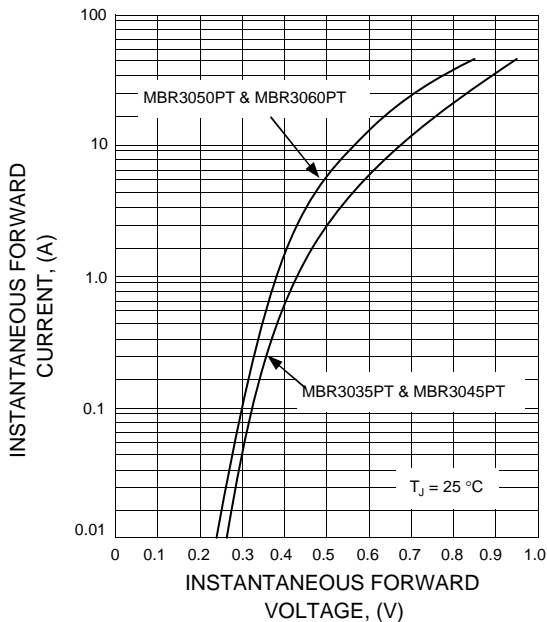
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

