

Technical Data  
Data Sheet 3491, Rev.-

**MBR3030PT-G-MBR3060PT-G**  
**30A SCHOTTKY BARRIER RECTIFIER**

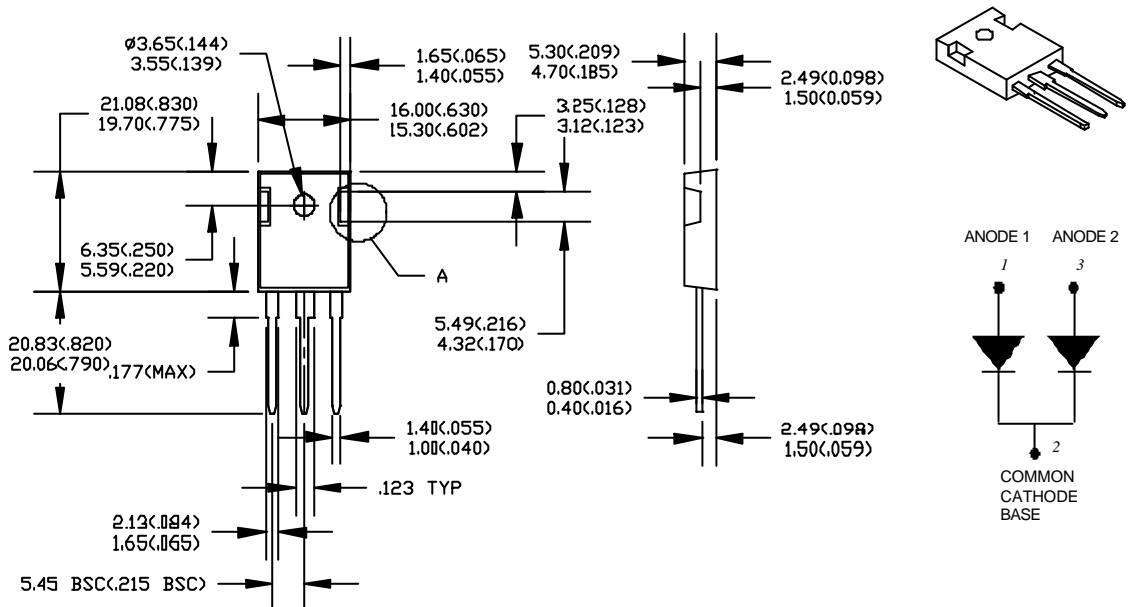
**Mechanical Data:**

· Case: Molded Plastic · Polarity: As Marked on Body · Weight: 5.6 grams (approx.) · Mounting Position: Any · Marking: Type Number

**Features:**

- Schottky Barrier Chip
- Guard Ring for Transient Protection
- High Current Capability, Low Forward
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- Green Products in Compliance with the RoHS Directive

**Mechanical Dimensions: In Inches / mm**



	<p>OPTION C</p> <p>5.49(.216) 4.32(.170)</p>	<p>Option C is also available. To order specifically the option C, please add suffix “-C” to the part number: To order specifically the standard option, please add suffix “-S” to the part number.  If there is no suffix to the part number, the part could come with either option.</p>
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**TO-247AD**

**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

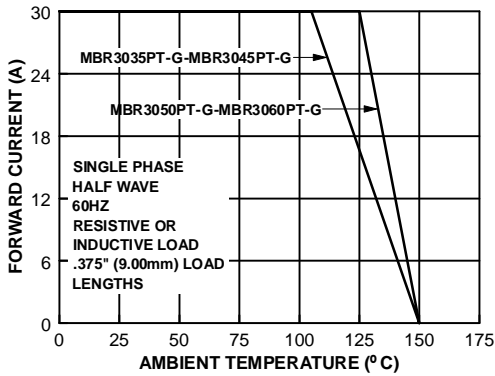
Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

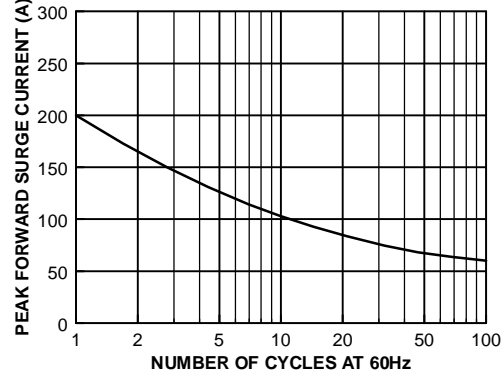
Characteristic	Symbol	MBR3030PT-G	MBR3035PT-G	MBR3040PT-G	MBR3045PT-G	MBR3050PT-G	MBR3060PT-G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	35	40	45	50	60	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21	24.5	28	31.5	35	42	V
Average Rectified Output Current @T <sub>C</sub> = 95°C	I <sub>o</sub>	30						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200						A
Forward Voltage @I <sub>F</sub> = 20A @T <sub>C</sub> = 25°C @I <sub>F</sub> = 20A @T <sub>C</sub> = 125°C	V <sub>FM</sub>	0.65 0.60			0.75 0.65			V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	1.0 60			5.0 100			mA
Typical Junction Capacitance (Note 1)	C <sub>j</sub>	700						pF
Typical Thermal Resistance Junction to Case (Note 2)	R <sub>θJC</sub>	1.4			2.0			K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150						°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Thermal resistance junction to case mounted on heatsink.

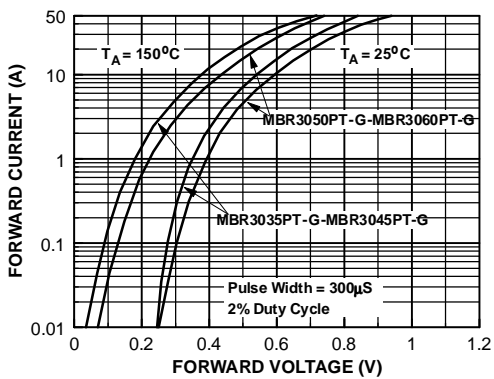
**Forward Current Derating Curve**



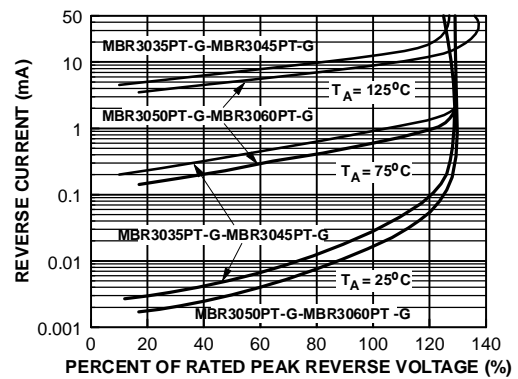
**Non-Repetitive Surge Current**



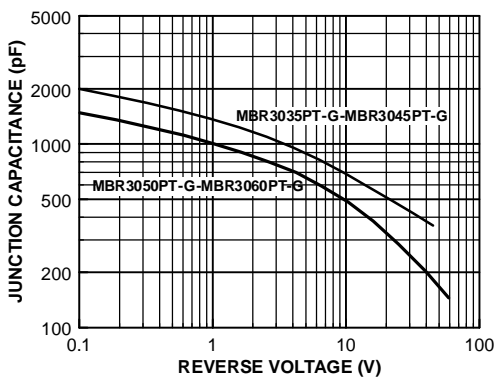
**Forward Characteristics**



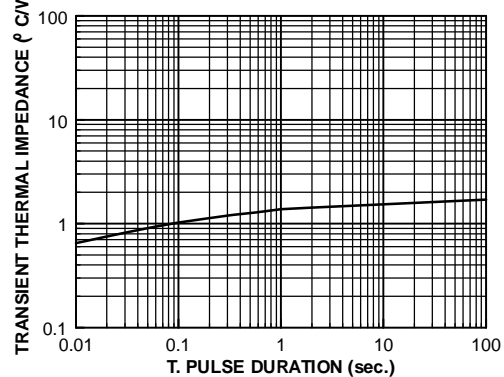
**Reverse Characteristics**



**Typical Junction Capacitance**



**Transient Thermal Impedance**



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