



## Schottky Barrier Rectifiers

**Reverse Voltage - 60 Volts**  
**Forward Current - 30.0 Amperes**

### FEATURES

- Schottky Barrier Chip
- Guard ring for Overvoltage protection
- Low Power loss, High Efficiency
- Low Reverse Leakage Current
- High Surge Capacity
- Plastic Material has UL Flammability

Classification 94V-0.

### MECHANICAL DATA

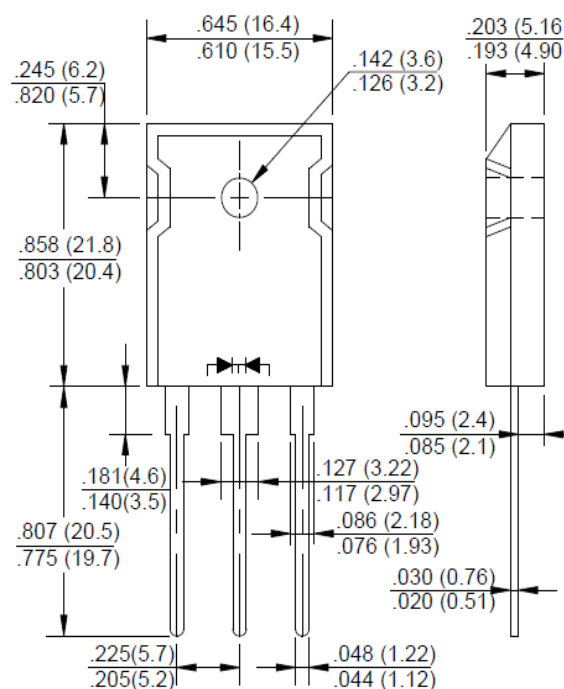
- Case: TO-3P molded plastic
- Polarity: As marked
- Mounting position: Any
- Terminals: Pure tin Plated, Lead free Solderable per MIL-STD-750, Method 2026

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

### TYPICAL APPLICATIONS

- For use in low voltage, high frequency inverters mode power supplies, freewheeling diode, and polarity protection application

### TO-3P



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	MBR3060PT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Forward (See Figure)	I <sub>F(AV)</sub>	30	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	250	A
Maximum Forward Voltage at 15A per leg	V <sub>F</sub>	0.8	V
Maximum DC Reverse Current @T <sub>J</sub> =25°C	I <sub>R</sub>	0.1	mA
Rated DC Blocking Voltage @T <sub>J</sub> =125°C		20	
Typical Thermal Resistance to ambient	R <sub>θJA</sub>	40.0	°C/W
Typical Thermal Resistance to case	R <sub>θJC</sub>	2.2	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

NOTE: The typical data above is for reference only.



Fig. 1 - Forward Current Derating Curve

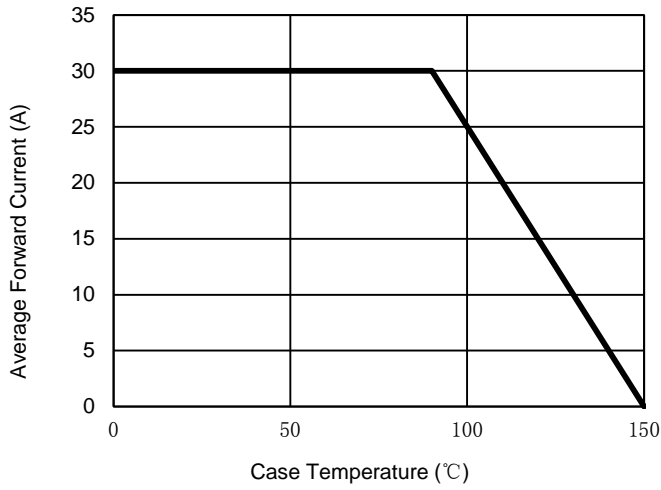


Fig. 2 - Maximum Non-Repetitive Surge Current

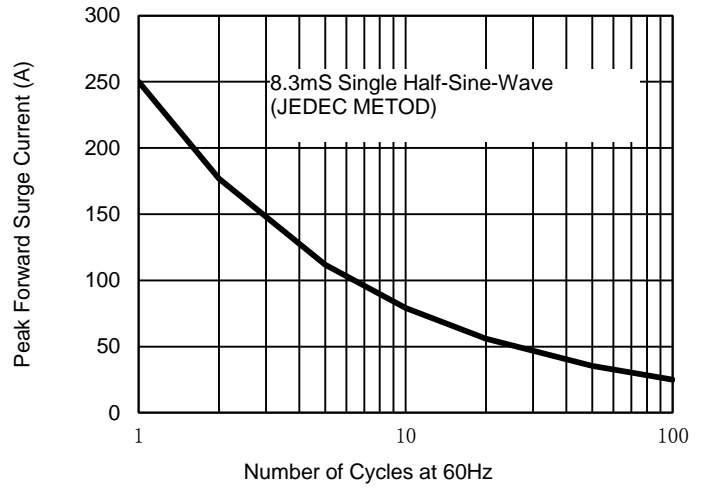


Fig. 3 - Typical Reverse Characteristics

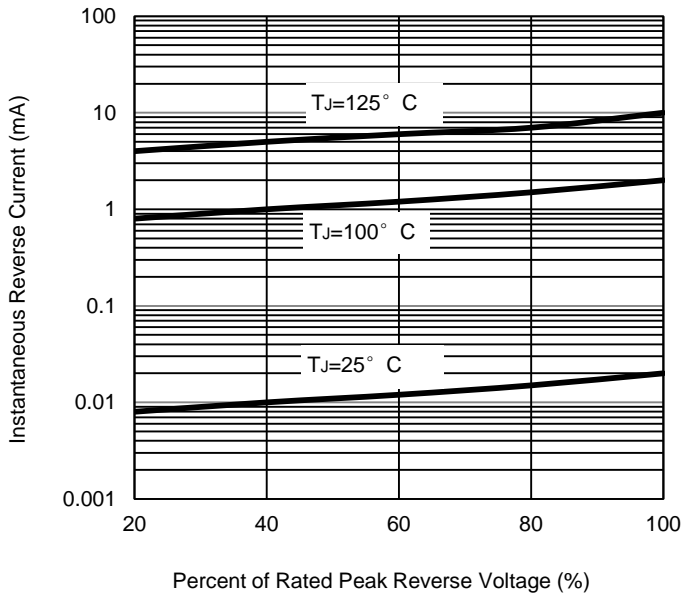
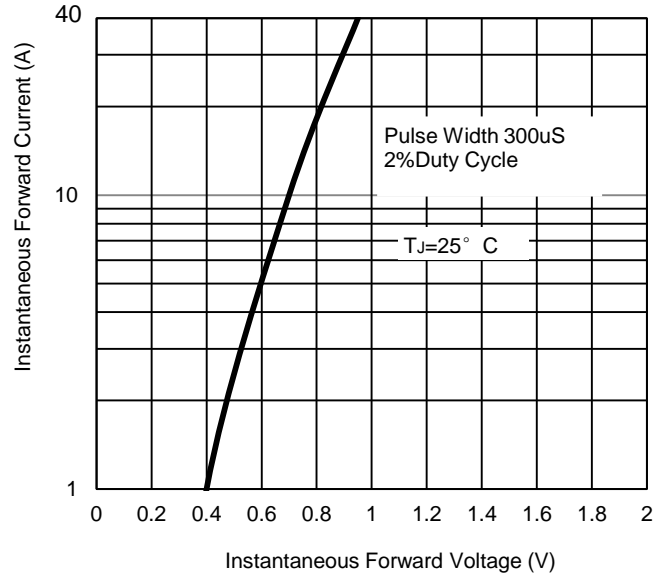


Fig. 4 - Typical Forward Characteristics





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