

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **30 to 60** Volts
FORWARD CURRENT - **60** Amperes

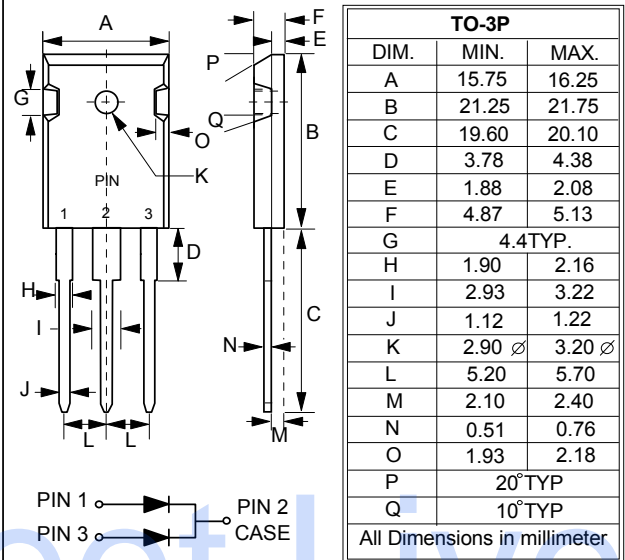
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free-wheeling, and polarity protection applications

MECHANICAL DATA

- Case : TO-3P molded plastic
- Polarity : As marked on the body
- Weight : 0.2 ounces, 5.6 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

TO-3P



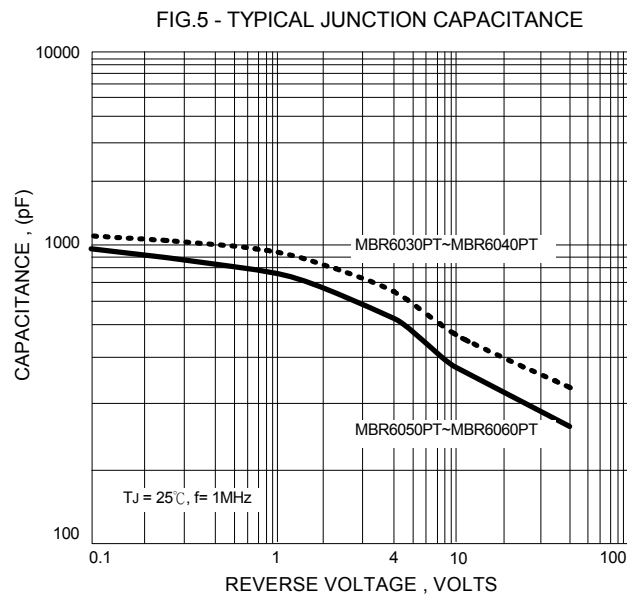
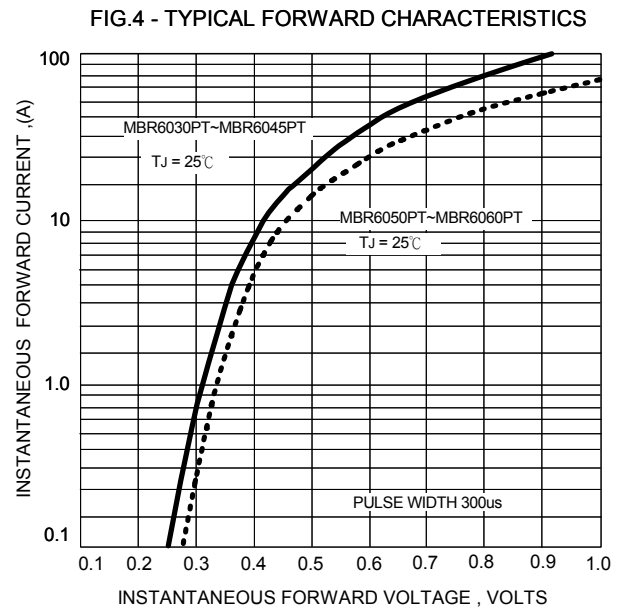
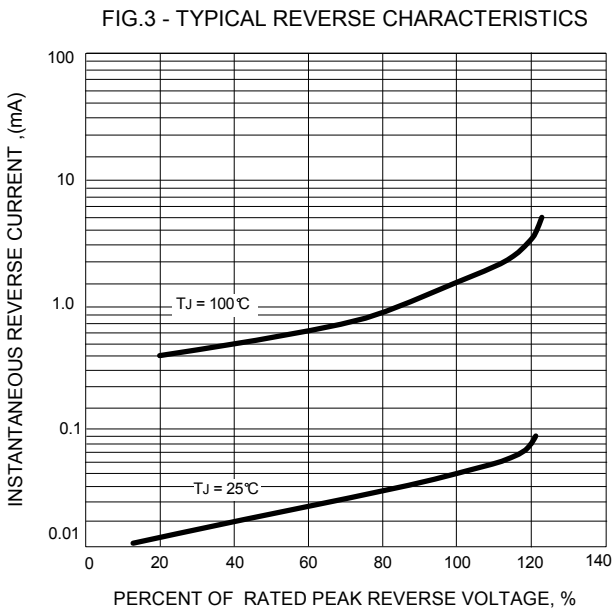
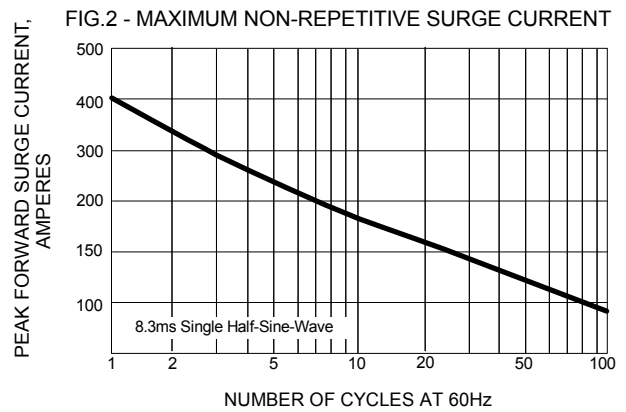
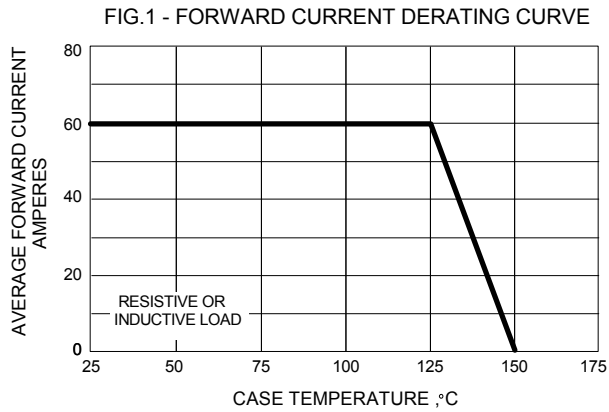
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS | SYMBOL | MBR 6030PT | MBR 6035PT | MBR 6040PT | MBR 6045PT | MBR 6050PT | MBR 6060PT | UNIT |
|--|--------|---------------------------------------|------------|--------------|------------|--------------|------------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | VRMS | 21 | 24.5 | 28 | 31.5 | 35 | 42 | V |
| Maximum DC Blocking Voltage | VDC | 30 | 35 | 40 | 45 | 50 | 60 | V |
| Maximum Average Forward Rectified Current (See Fig.1) @TC=125°C | I(AV) | 60 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave @TA=25°C | IFSM | 400 | | | | | | A |
| Maximum Forward Voltage (Note 1) | VF | IF=30A @ TJ=25°C IF=30A @ TJ=125°C | | 0.62 0.55 | | 0.72 0.65 | | V |
| | | IF=60A @ TJ=25°C | | 0.75 | | 0.85 | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @TJ=25°C @TJ=100°C | IR | | | | | 1.0 50 | | mA |
| Typical Thermal Resistance (Note 2) | RθJC | 1.0 | | | | | | °C/W |
| Typical Junction Capacitance per element (Note 3) | CJ | 700 | | | | 550 | | pF |
| Operating Temperature Range | TJ | -55 to +150 | | | | | | °C |
| Storage Temperature Range | TSTG | -55 to +175 | | | | | | °C |

NOTES : 1. 300us Pulse Width duty cycle 2%.
2. Thermal Resistance Junction to Case.
3. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

REV. 6, Oct-2010, KTHD14



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