

CURRENT 60 Ampere
VOLTAGE RANG 200 to 1000 Volts

MUR6020PT THRU MUR60100PTR

Features

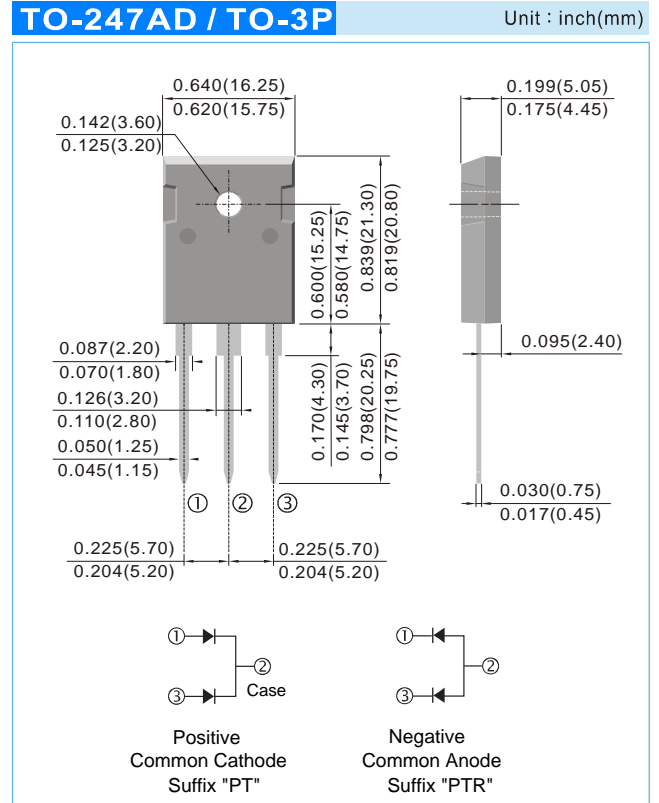
- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Application

- * Automotive Inverters and Solar Inverters
- * Plating Power Supply, Motor Control, SMPS and UPS
- * Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- * Case: Heatsink TO-247AD/247S/3P open metal package
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202 method 208
- * Polarity: As marked on diode body
- * Mounting position: Any
- * Weight: 0.65 gram approximately



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%.

| | SYMBOL | MUR 6020PT/R | MUR 6040PT/R | MUR 6060PT/R | MUR 6080PT/R | MUR 60100PT/R | UNIT |
|---|----------|--------------|--------------|--------------|--------------|---------------|----------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | VRMS | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | VDC | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current Tc=125°C (Total Device 2x30A=60A) | IF(AV) | 60.0 | | | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | IFSM | 600 | | | | | A |
| Maximum Instantaneous Forward Voltage @ 30.0 A (Per Diode/Per Leg) | VF | 0.98 | 1.3 | 1.5 | 1.7 | 1.9 | V |
| Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=125°C | IR | 10 500 | | | | | uA uA |
| Maximum Reverse Recovery Time (Note 1) | Trr | 35 | | | 50 | | nS |
| Typical junction Capacitance (Note 2) | CJ | 150 | | | | | pF |
| Operating Junction and Storage Temperature Range | TJ, TSTG | -55 to +150 | | | | | °C |

NOTES : (1) Reverse recovery test conditions $I_F = 0.5A$ $I_R = 1.0A$ $I_{rr} = 0.25A$.
(2) Thermal Resistance junction to terminal.
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

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RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

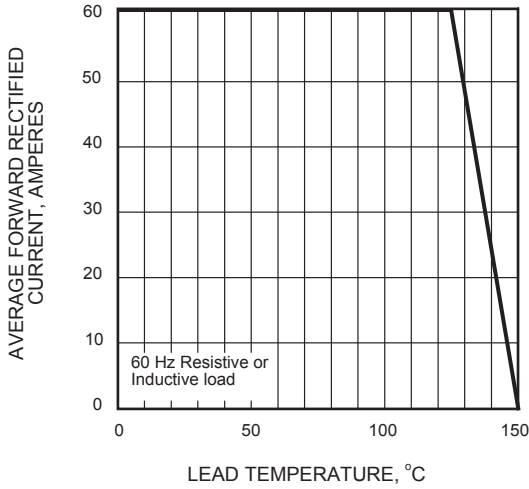


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

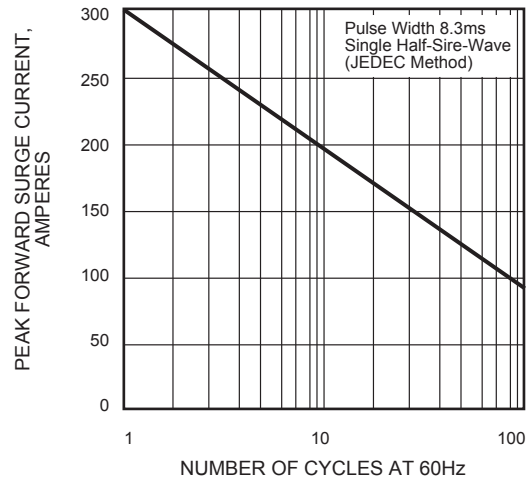


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

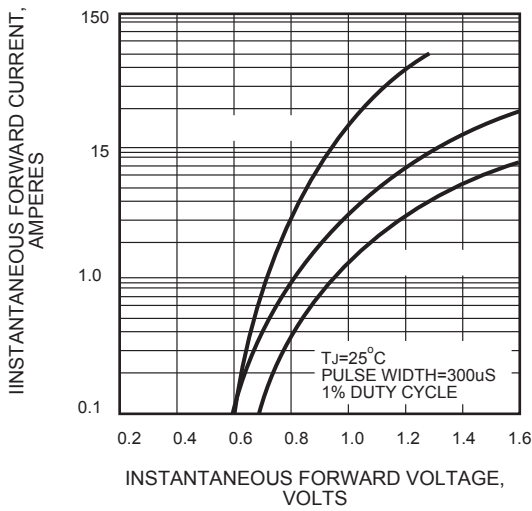


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

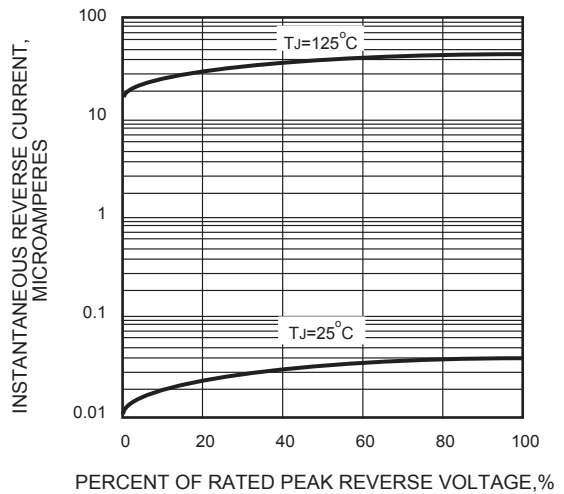
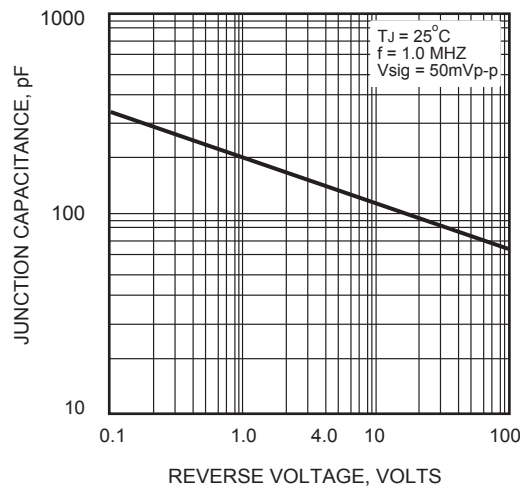


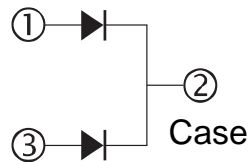
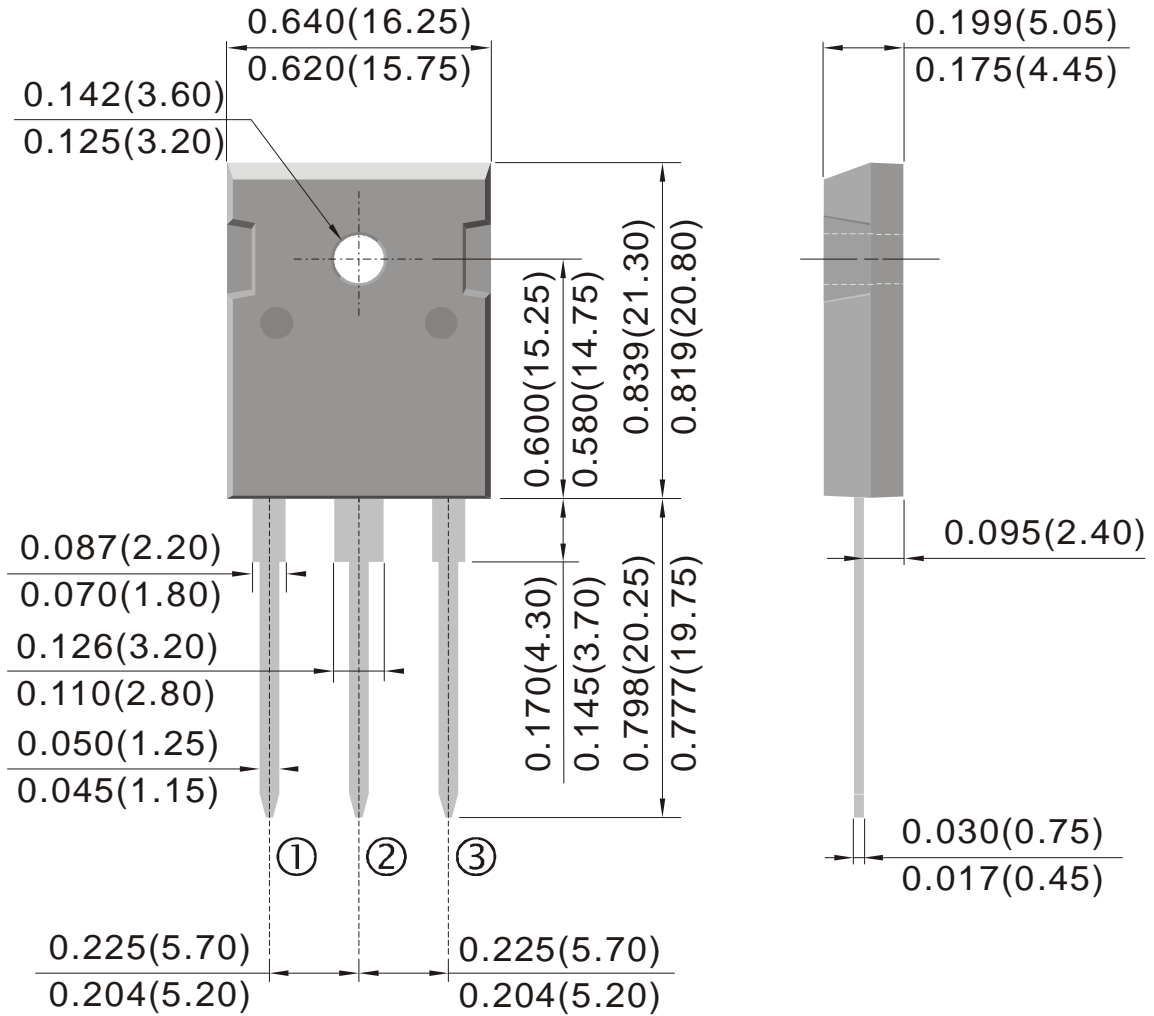
FIG.5 - TYPICAL JUNCTION CAPACITANCE



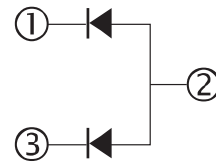
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T0-247AD



Positive
 Common Cathode
 Suffix "PT"

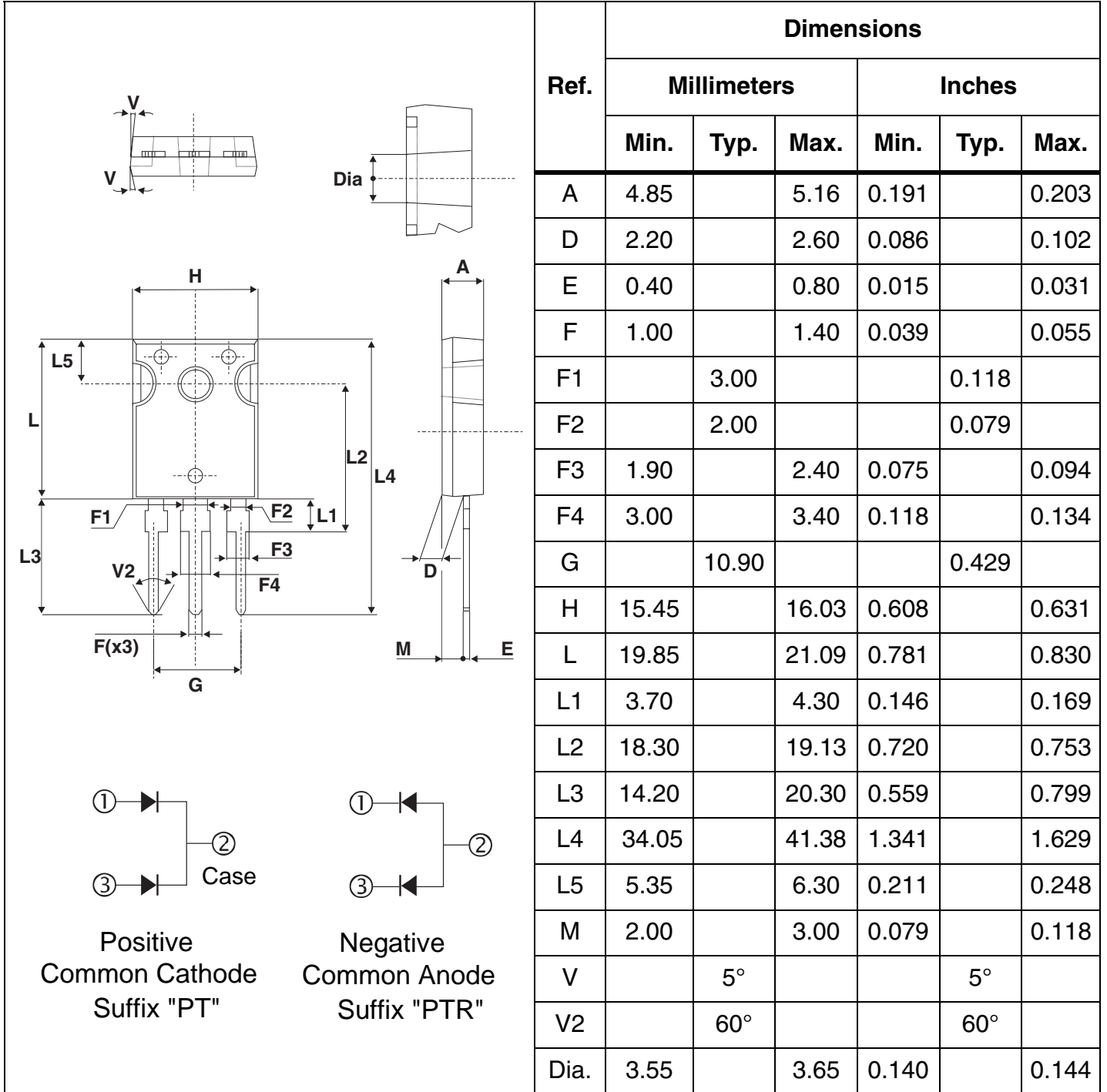


Negative
 Common Anode
 Suffix "PTR"

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T0-247S

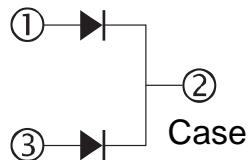
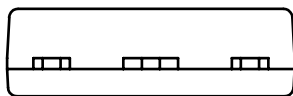
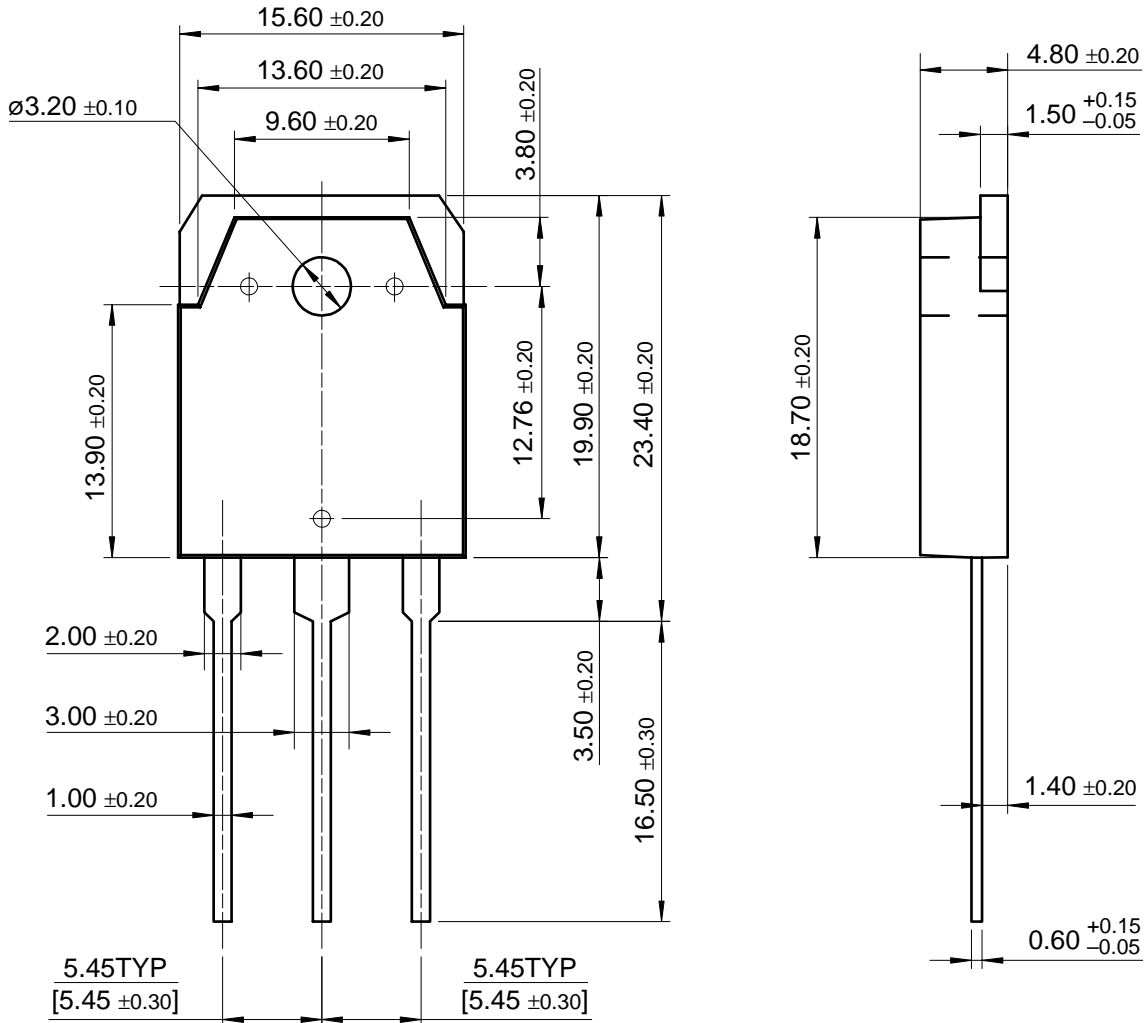


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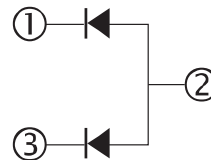
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TO-3P



Positive
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