

6A05 THRU 6A10

Features

- Low Cost
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Low Leakage

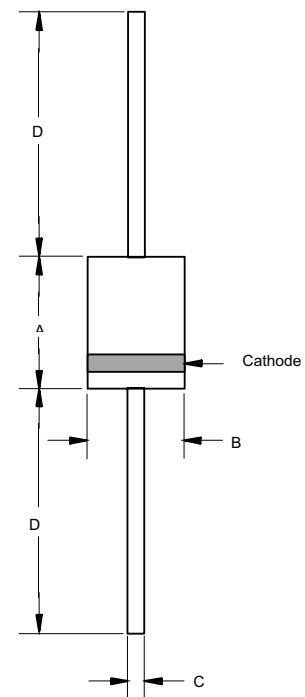
Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 10°C/W Junction To Ambient

6 Amp Rectifier 50 - 1000 Volts

| Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|----------------|----------------|--|---------------------|-----------------------------|
| 6A05 | --- | 50V | 35V | 50V |
| 6A1 | --- | 100V | 70V | 100V |
| 6A2 | --- | 200V | 140V | 200V |
| 6A4 | --- | 400V | 280V | 400V |
| 6A6 | --- | 600V | 420V | 600V |
| 6A8 | --- | 800V | 560V | 800V |
| 6A10 | --- | 1000V | 700V | 1000V |

R-6



Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 6.0A | $T_A = 60^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 400A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.95V | $I_{FM} = 6.0\text{A}; T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 100 μA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 150pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .340 | .360 | 8.60 | 9.10 | |
| B | .340 | .360 | 8.60 | 9.10 | |
| C | .048 | .052 | 1.20 | 1.30 | |
| D | 1.000 | --- | 25.40 | --- | |

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Figure 1
Typical Forward Characteristics

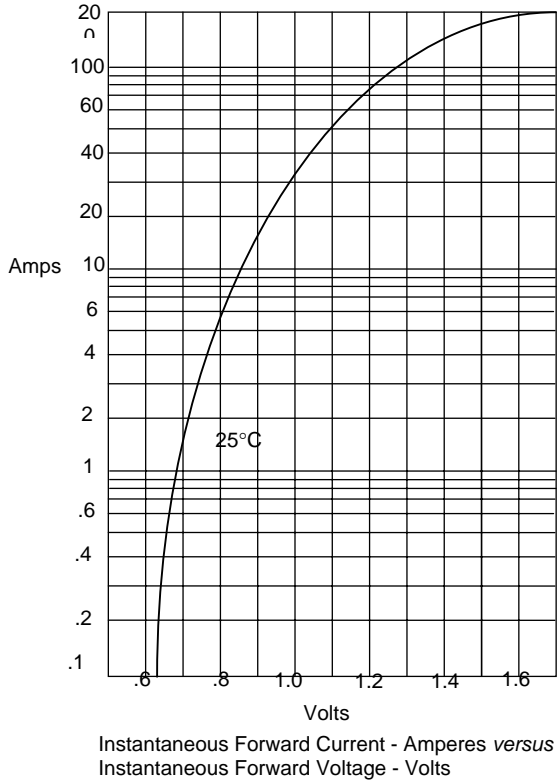


Figure 2
Forward Derating Curve

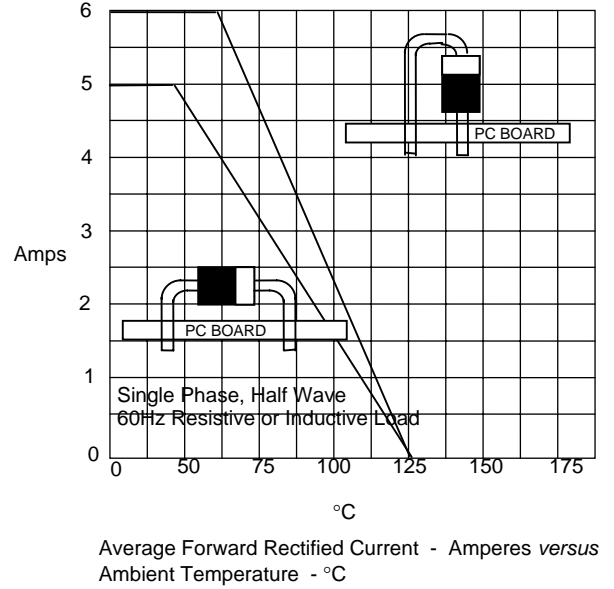
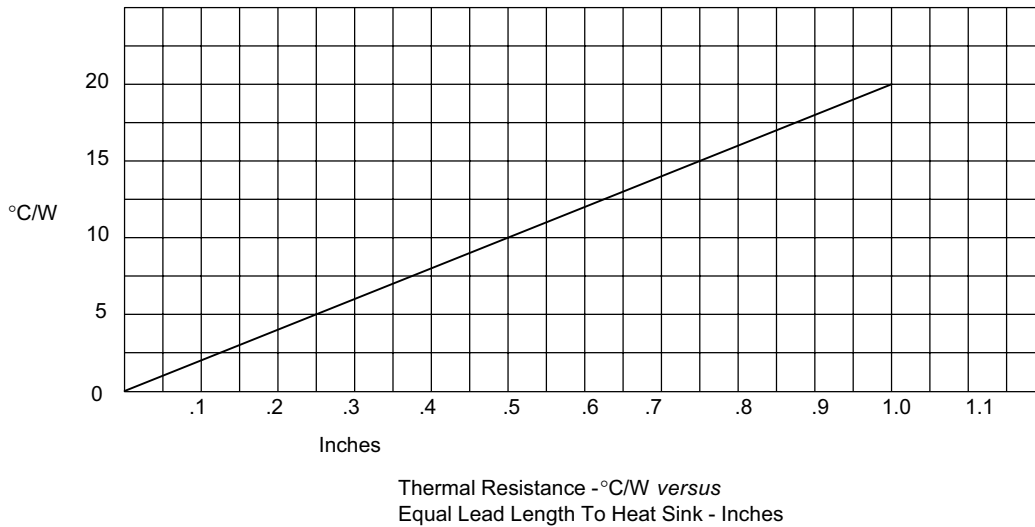
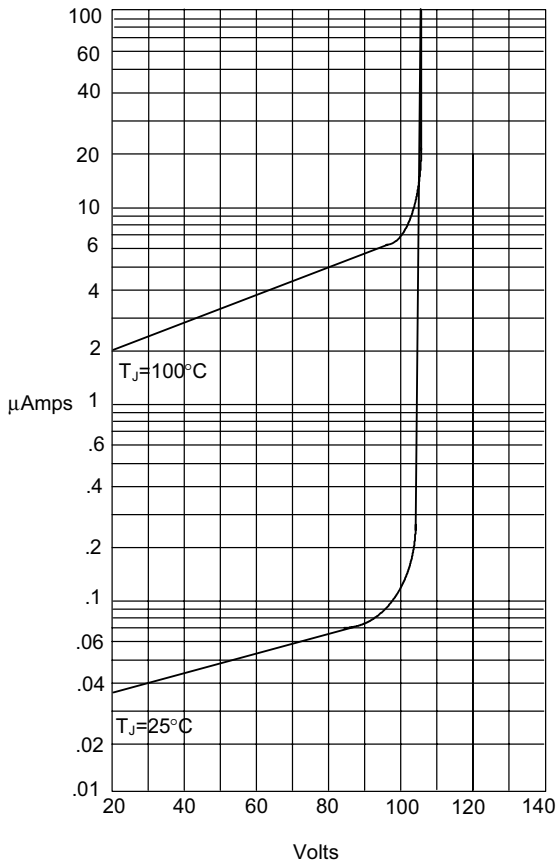


Figure 3
Typical Thermal Resistance versus Lead Length



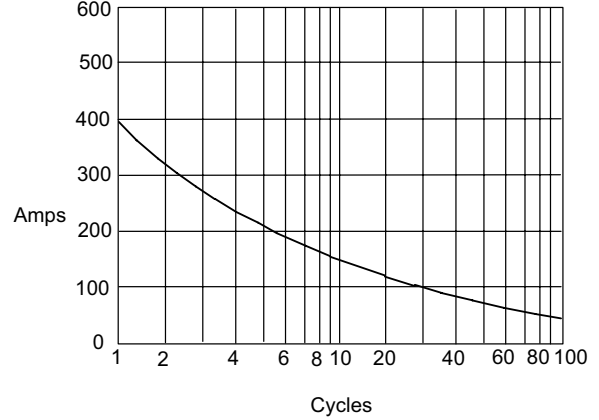
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Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus* Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes *versus* Number Of Cycles At 60Hz - Cycles