



THE DATASHEET OF
6A1



Features

- High Current Capability And Low Leakage
- Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

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

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

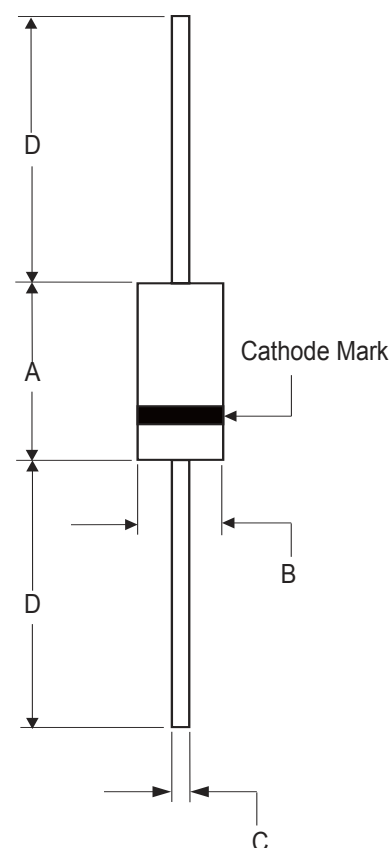
| | | | |
|---|-------------|---------------------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 6.0A | $T_A=60^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 400A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 0.95V | $I_{FM}=6.0\text{A};$ $T_J=25^\circ\text{C}(\text{Note } 2)$ |
| 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, $V_R=4.0\text{V}$ |

Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

2. Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

6 Amp Rectifier 50 to 1000 Volts

R-6



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.340 | 0.360 | 8.60 | 9.10 | |
| B | 0.340 | 0.360 | 8.60 | 9.10 | |
| C | 0.048 | 0.052 | 1.20 | 1.32 | |
| D | 1.000 | ----- | 25.40 | ----- | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

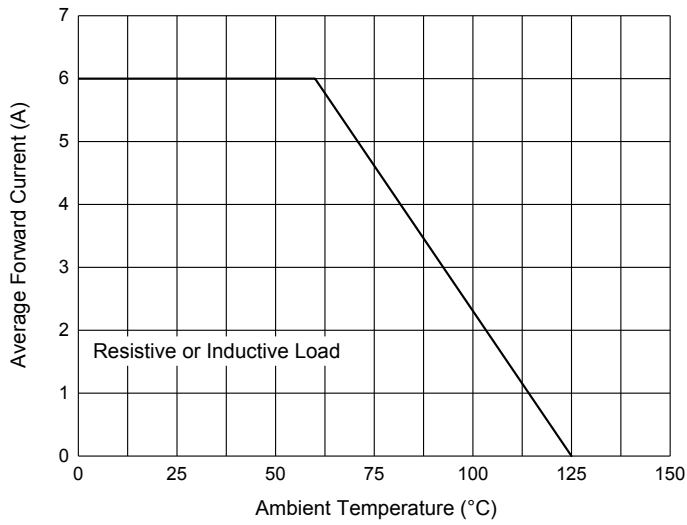


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

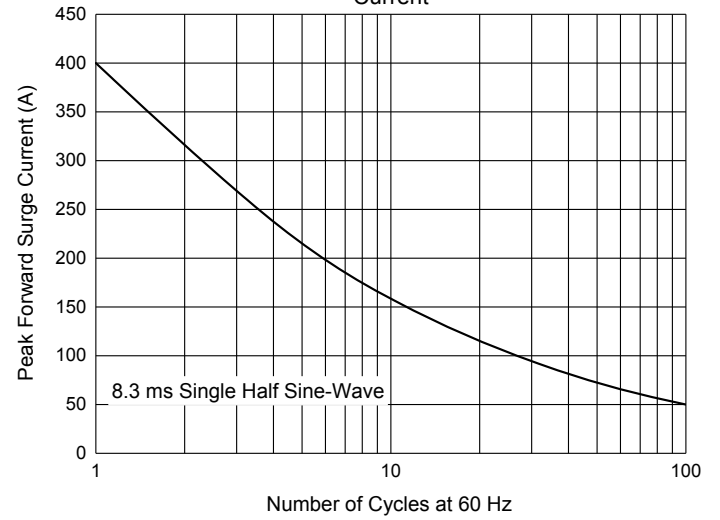


Fig. 3 - Typical Instantaneous Forward Characteristics

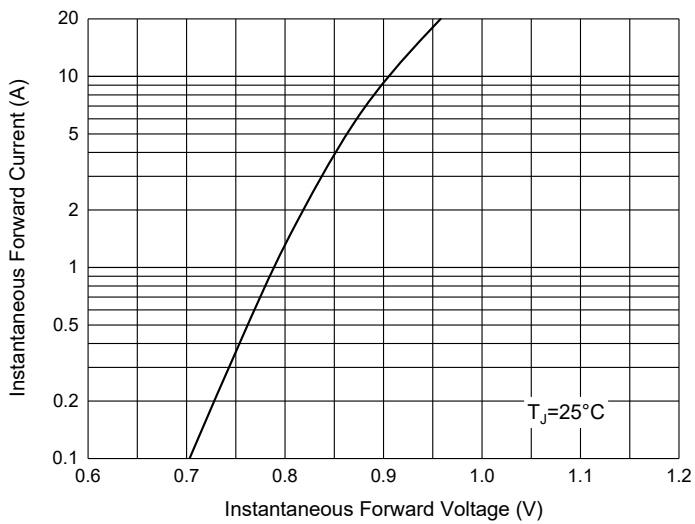
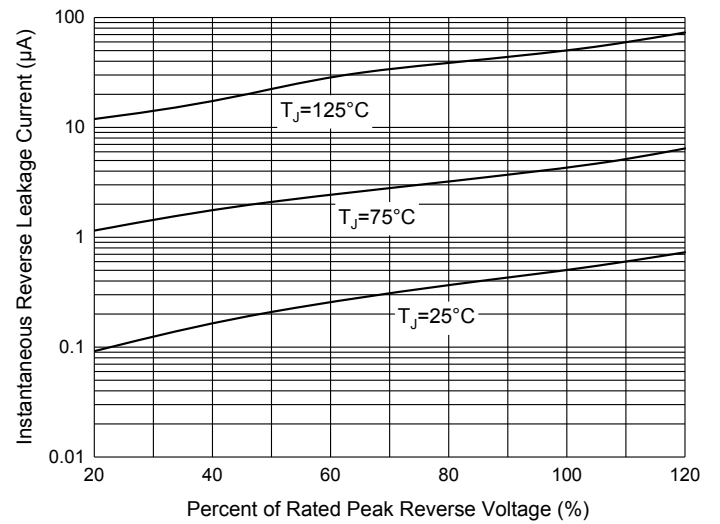


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|-------------------------------|
| Part Number-TP | Tape&Reel: 500pcs/Reel |
| Part Number-AP | Ammo Packing: 450pcs/Ammo Box |
| Part Number-BP | Bulk: 4.8Kpcs/Carton |

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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