

Power Schottky Rectifier - 40Amp 30Volt

Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- High Junction Temperature Capability
- Low forward voltage, high current capability
- High surge capacity
- Low power loss, high efficiency

Application

- Switching-Mode Power Supply
- Solar-System Control Box

Absolute maximum ratings

| Symbol | Ratings | Unit | Conditions |
|---------|-------------|------|---------------------------------|
| IF(AV) | 40 | A | Average Forward Current |
| VRRM | 30 | V | Repetitive Peak Reverse Voltage |
| IFSM | 400 | A | Peak Forward Surge Current |
| VF(max) | 0.35 | V | Forward Voltage Drop |
| Tj | -50 to +150 | °C | Operating Temperature |
| Tstg | -50 to +125 | °C | Storage Temperature |

Electrical characteristics

| Parameters | Symbol | Ratings | Conditions |
|--|---------|-------------|------------|
| Maximum Instantaneous Forward Voltage | VF | 0.48V | Tc = 25°C |
| Forward Voltage | | 0.35V | Tc = 125°C |
| Maximum Reverse Leakage Current | IR | 1.0mA | Tc = 25°C |
| Maximum Voltage Rate of Change | dv/dt | 10,000 V/μs | Rated VR |
| Typical Thermal Resistance, Junction to Case | Rθ(j-c) | 2.2 °C/W | Per diode |

Note: Pulse Test : 380μs pulse width, 2% duty cycle

T0-220AB

| DIMENSIONS | | | | | NOTE |
|------------|--------|------|-------|-------|------|
| DIM | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .579 | .606 | 14.70 | 15.40 | |
| B | .392 | .411 | 9.95 | 10.45 | |
| C | .104 | .116 | 2.65 | 2.95 | |
| D | .248 | .272 | 6.30 | 6.90 | |
| E | .325 | .350 | 8.25 | 8.90 | |
| F | .126 | .157 | 3.20 | 4.00 | |
| G | .492 | .551 | 12.50 | 14.00 | |
| H | .096 | .108 | 2.45 | 2.75 | |
| I | .028 | .039 | 0.70 | 1.00 | |
| J | .010 | .022 | 0.25 | 0.55 | |
| K | .146 | .157 | 3.70 | 4.00 | |
| L | .167 | .187 | 4.25 | 4.75 | |
| M | .045 | .057 | 1.15 | 1.45 | |
| N | .089 | .114 | 2.25 | 2.90 | |
| O | .047 | .055 | 1.20 | 1.40 | |

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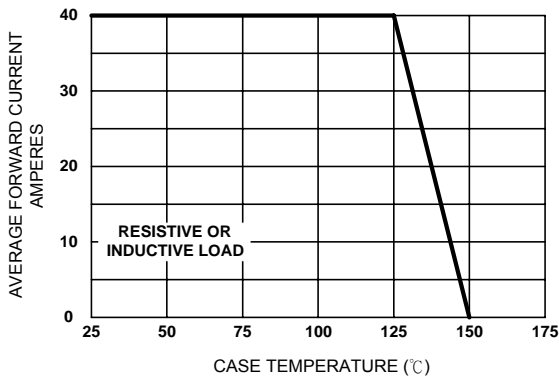


Figure 1. Forward Current Derating Curve

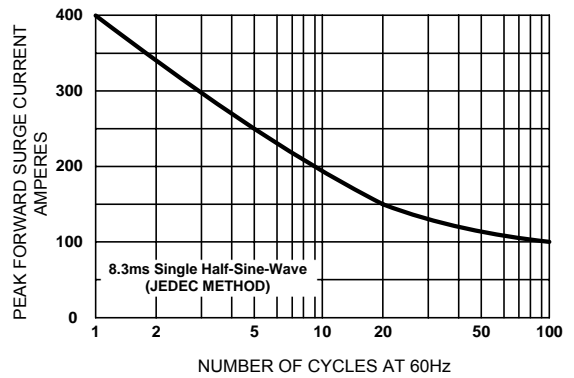


Figure 2. Maximum Non-repetitive Surge Current

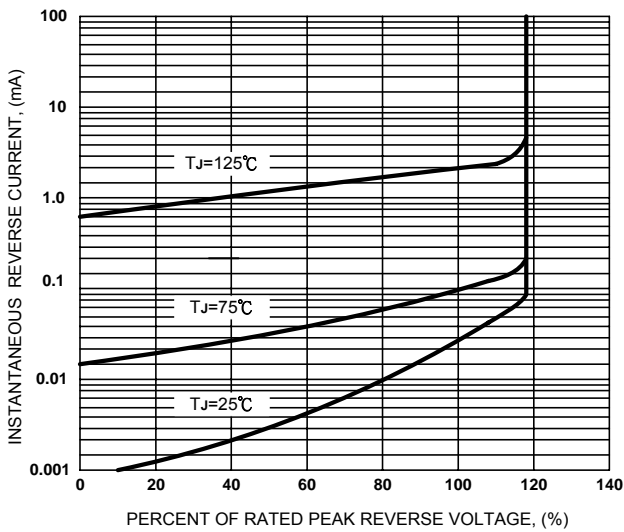


Figure 3. Typical Reverse Characteristics

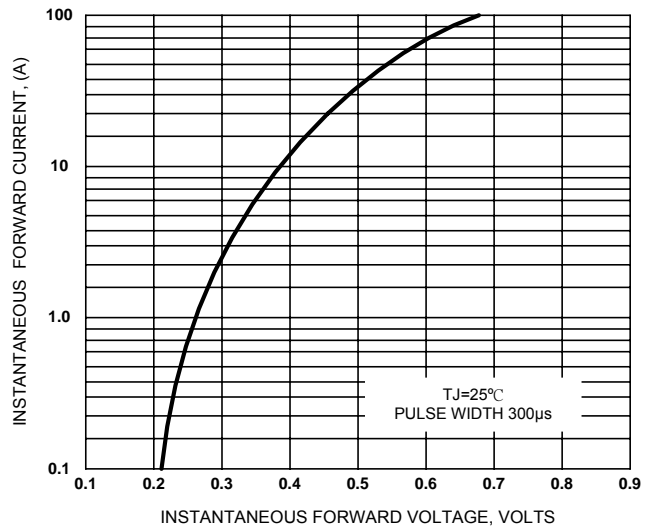


Figure 4. Typical Forward Characteristics

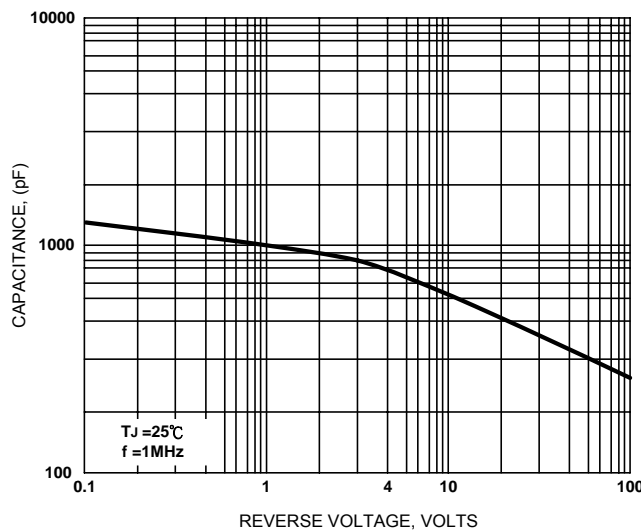


Figure 5. Typical Junction Capacitance