# RECTIFIERS
## Standard Recovery, 2 Amp to 4 Amp

UT2005-UT2060
UT3005-UT3060
UT4005-UT4060

**FEATURES**
- Continuous Rating: to 4A
- Controlled Avalanche
- Surge Rating: to 100A
- PIV: to 600 V
- Miniature Package

**DESCRIPTION**
High average power and surge capability make these series of devices attractive in many high-rel applications.

All Microsemi rectifiers have a sleeve of pure hard glass fused to the silicon junction. Since the silicon sees only this glass, electrical characteristics are permanently stable. This voidless, monolithic package is totally unaffected by the most severe moisture or temperature testing.

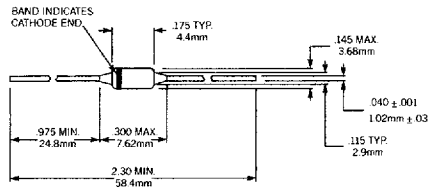
**ABSOLUTE MAXIMUM RATINGS**

| Peak Inverse Voltage | 2 Amp Series | 3 Amp Series | 4 Amp Series |
|---|---|---|---|
| 50V | UT2005 | UT3005 | UT4005 |
| 100V | UT2010 | UT3010 | UT4010 |
| 200V | UT2020 | UT3020 | UT4020 |
| 400V | UT2040 | UT3040 | UT4040 |
| 600V | UT2060 | UT3060 | UT4060 |

| | 2 AMP SERIES | 3 AMP SERIES | 4 AMP SERIES |
|---|---|---|---|
| Maximum Average D.C. Output Current | | | |
| @ $T_A$ = 25°C | 2.0A | 3.0A | 4.0A |
| @ $T_A$ = 100°C | 1.0A | 1.5A | 2.0A |
| Non-Repetitive Sinusoidal Surge Current (8.3ms) | 60A | 80A | 100A |
| Operating Temperature Range | −195°C to +175°C | | |
| Storage Temperature Range | −195°C to +200°C | | |
| Thermal Resistance | See lead temperature derating curve | | |

**MECHANICAL SPECIFICATIONS**

**UT2005-UT2060 UT3005-UT3060 UT4005-UT4060**




**Part Identification:** Orange band indicates "UT." Part number printed on body.

**Polarity:** Denoted by orange band.

**Weight:** 0.75 grams, typical.

**BODY B**



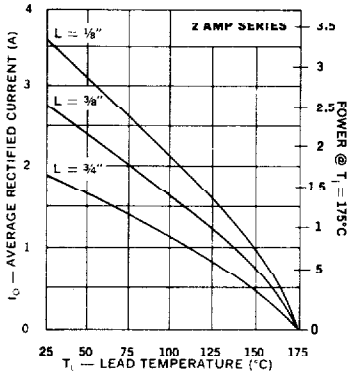
**THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10**

Microsemi Corp.
Watertown
*The diode experts*

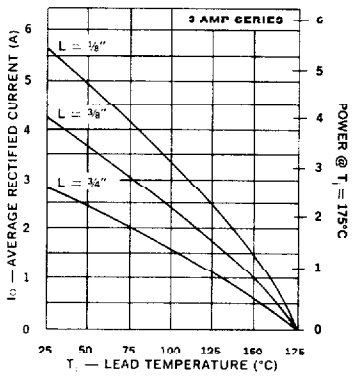
**ELECTRICAL SPECIFICATIONS (at 25°C unless noted)**

| Type | PIV | Maximum Forward Voltage Drop | Maximum Leakage Current @ PIV | |
|---|---|---|---|---|
| | | | 25°C | 100°C |
| UT4005<br>UT4010<br>UT4020<br>UT4040<br>UT4060 | 50V<br>100V<br>200V<br>400V<br>600V | 1V @ 3A | 5μA | 100μA |
| UT3005<br>UT3010<br>UT3020<br>UT3040<br>UT3060 | 50V<br>100V<br>200V<br>400V<br>600V | 1V @ 2A | 5μA | 100μA |
| UT2005<br>UT2010<br>UT2020<br>UT2040<br>UT2060 | 50V<br>100V<br>200V<br>400V<br>600V | 1V @ 1A | 5μA | 100μA |

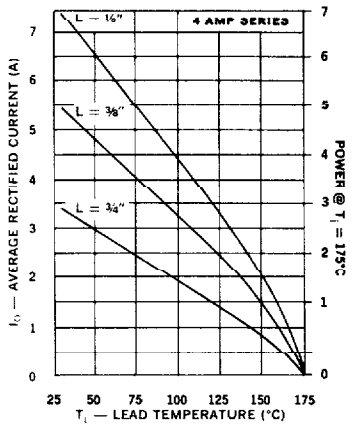
**Maximum Current vs Lead Temperature**



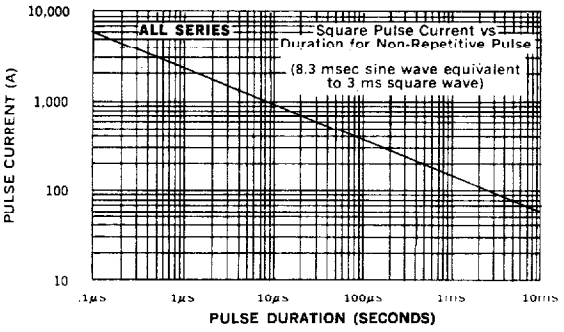

**Maximum Current vs Lead Temperature**



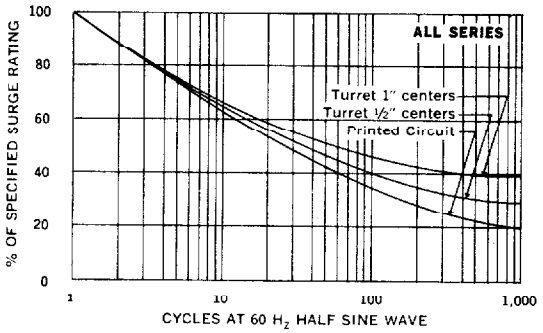

**Maximum Current vs Lead Temperature**




**Forward Pulse Current vs Pulse Duration**




**Allowable Forward Surge vs Number of Cycles**

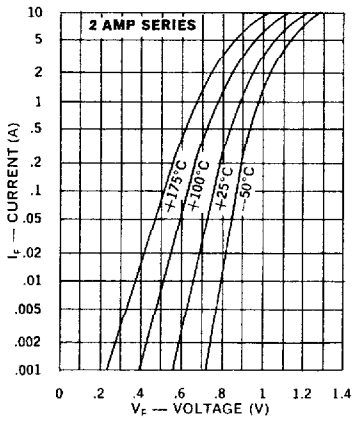



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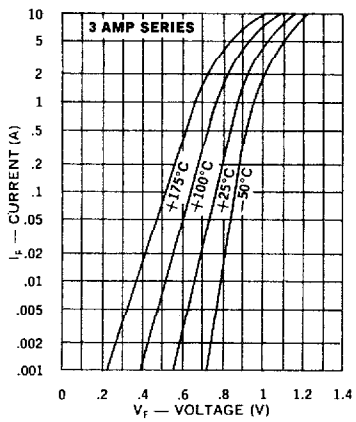


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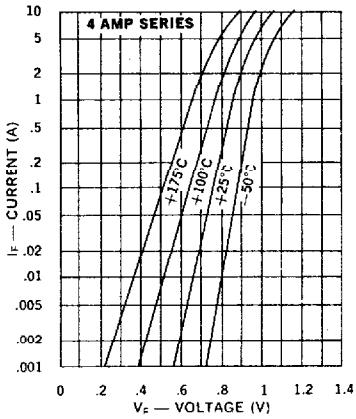
**Typical Forward Current vs Forward Voltage**



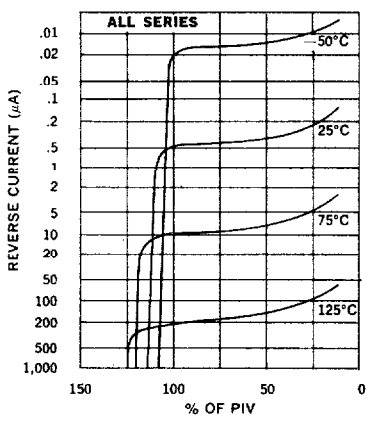

**Typical Forward Current vs Forward Voltage**



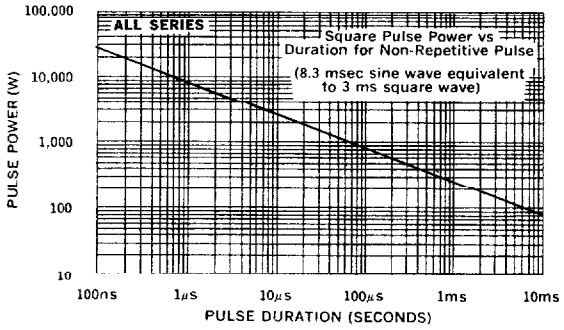

**Typical Forward Current vs Forward Voltage**




**Typical Reverse Current vs PIV**




**Reverse Pulse Power vs Pulse Duration**




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