

## HIGH RELIABILITY POWER RECTIFIER

Qualified per MIL-PRF-19500/260

- Glass Passivated Die      • Glass to Metal Seal Construction
- 240 Amps Surge Rating      • VRRM to 1000 Volts

### DEVICES

|                |                 |                |                 |
|----------------|-----------------|----------------|-----------------|
| <b>1N1202A</b> | <b>1N1202AR</b> | <b>1N3671A</b> | <b>1N3671AR</b> |
| <b>1N1204A</b> | <b>1N1204AR</b> | <b>1N3673A</b> | <b>1N3673AR</b> |
| <b>1N1206A</b> | <b>1N1206AR</b> |                |                 |

### LEVELS

**JAN**  
**JANTX**  
**JANTXV**

### ABSOLUTE MAXIMUM RATINGS (T<sub>C</sub> = +25°C unless otherwise noted)

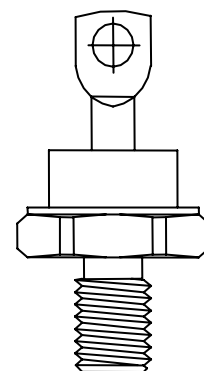
| Parameters / Test Conditions                                                                                                        | Symbol           | Value                            | Unit |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|------|
| Peak Repetitive Reverse Voltage<br>1N1202A 1N1202AR<br>1N1204A 1N1204AR<br>1N1206A 1N1206AR<br>1N3671A 1N3671AR<br>1N3673A 1N3673AR | V <sub>RWM</sub> | 200<br>400<br>600<br>800<br>1000 | V    |
| Average Forward Current, T <sub>C</sub> = 150°                                                                                      | I <sub>F</sub>   | 12                               | A    |
| Peak Surge Forward Current @ t <sub>p</sub> = 8.3ms, half sinewave,<br>T <sub>C</sub> = 200°C, T = 1/120s                           | I <sub>FSM</sub> | 240                              | A    |
| Thermal Resistance, Junction to Case                                                                                                | R <sub>θjc</sub> | 2.0                              | °C/W |
| Operating Case Temperature Range                                                                                                    | T <sub>C</sub>   | -65°C to 150°C                   | °C   |
| Storage Temperature Range                                                                                                           | T <sub>stg</sub> | -65°C to 200°C                   | °C   |

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = +25°C, unless otherwise noted)

| Parameters / Test Conditions                                                                                                                                                                                                                                                                                                                                                   | Symbol         | Min. | Max. | Unit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|------|------|
| Forward Voltage<br>I <sub>F</sub> = 38A, T <sub>j</sub> = 25°C*                                                                                                                                                                                                                                                                                                                | V <sub>F</sub> |      | 1.35 | V    |
| Forward Voltage<br>I <sub>F</sub> = 240A, T <sub>j</sub> = 25°C*                                                                                                                                                                                                                                                                                                               | V <sub>F</sub> |      | 2.3  | V    |
| Reverse Current<br>V <sub>R</sub> = 200, T <sub>j</sub> = 25°C      1N1202A 1N1202AR<br>V <sub>R</sub> = 400, T <sub>j</sub> = 25°C      1N1204A 1N1204AR<br>V <sub>R</sub> = 600, T <sub>j</sub> = 25°C      1N1206A 1N1206AR<br>V <sub>R</sub> = 800, T <sub>j</sub> = 25°C      1N3671A 1N3671AR<br>V <sub>R</sub> = 1000, T <sub>j</sub> = 25°C      1N3673A 1N3673AR      | I <sub>R</sub> |      | 5    | μA   |
| Reverse Current<br>V <sub>R</sub> = 200, T <sub>j</sub> = 150°C      1N1202A 1N1202AR<br>V <sub>R</sub> = 400, T <sub>j</sub> = 150°C      1N1204A 1N1204AR<br>V <sub>R</sub> = 600, T <sub>j</sub> = 150°C      1N1206A 1N1206AR<br>V <sub>R</sub> = 800, T <sub>j</sub> = 150°C      1N3671A 1N3671AR<br>V <sub>R</sub> = 1000, T <sub>j</sub> = 150°C      1N3673A 1N3673AR | I <sub>R</sub> |      | 1.0  | mA   |

\* Pulse test: Pulse width 300 μsec, Duty cycle 2%

**Note:**

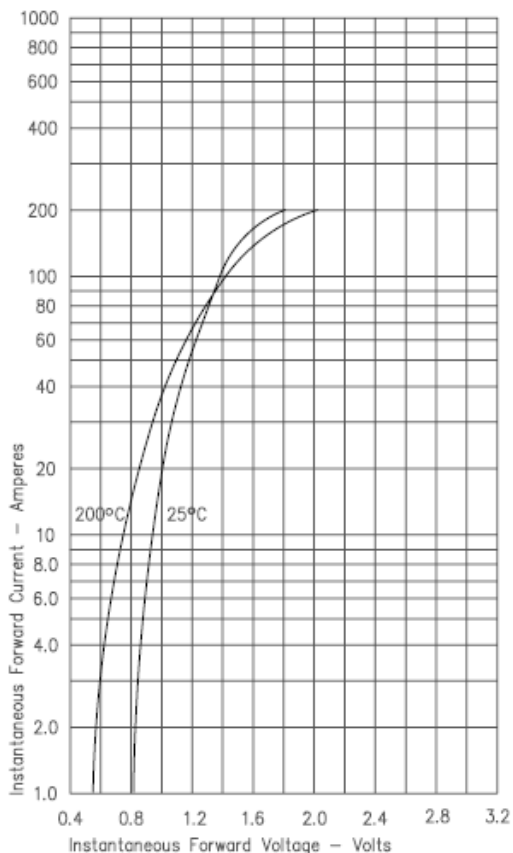


**DO-203AA (DO-4)**

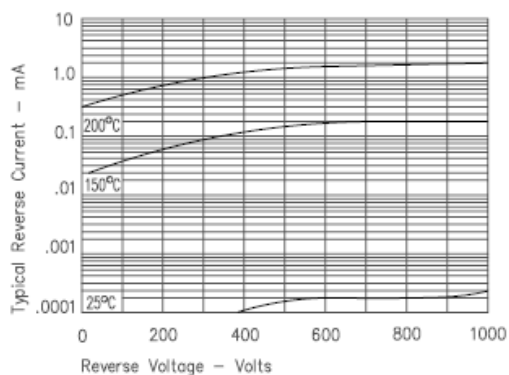
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### GRAPHS

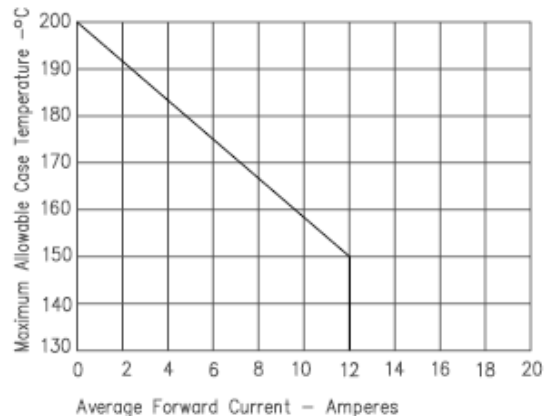
**FIGURE 1**  
**TYPICAL FORWARD CHARACTERISTICS**



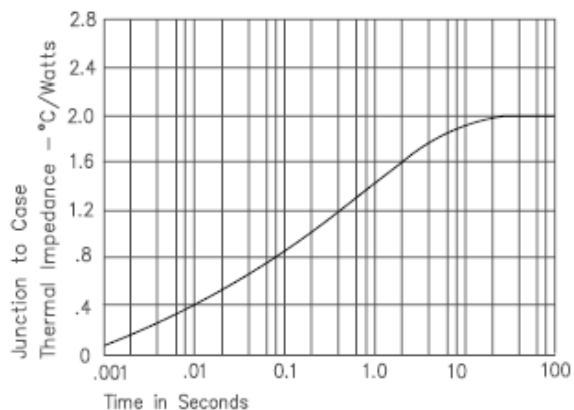
**FIGURE 2**  
**TYPICAL REVERSE CHARACTERISTICS**



**FIGURE 3**  
**FORWARD CURRENT DERATING**

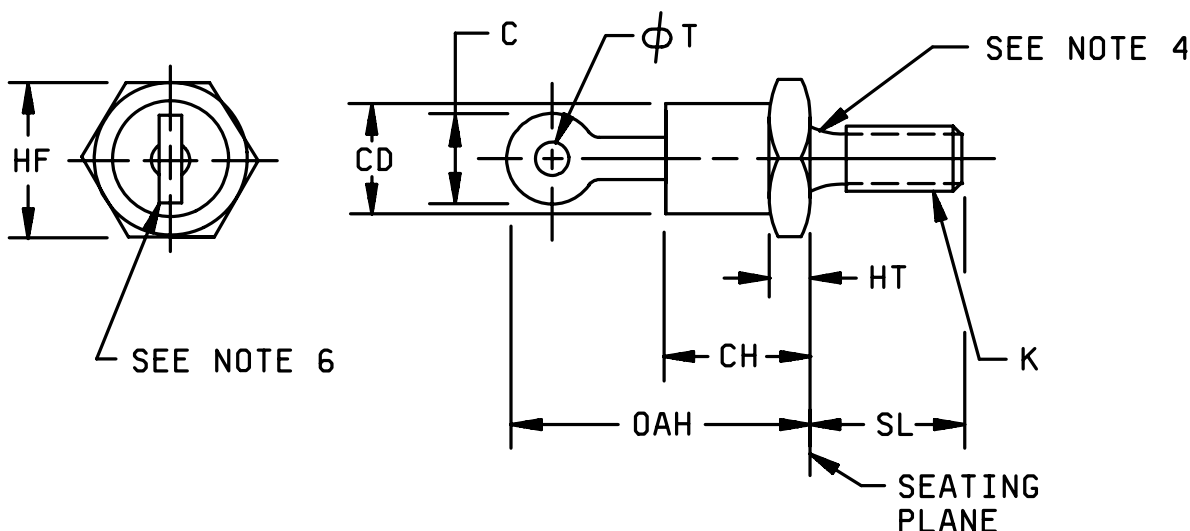


**FIGURE 5**  
**TRANSIENT THERMAL IMPEDANCE**



## HIGH RELIABILITY POWER RECTIFIER

### PACKAGE DIMENSIONS



#### NOTES:

1. Dimensions are in inches.
2. Millimeters are given for general information only.
3. Units must not be damaged by torque of 15 inch-pounds applied to 10-32NF-2B nut assembled on thread
4. Diameter of unthreaded portion .189 inch (4.80 mm) max and .163 inch (4.14 mm) min.
5. Complete threads to extend to within 2.5 threads of seating plane.
6. Angular orientation of this terminal is undefined.
7. Max pitch diameter of plated threads shall be basic pitch diameter .169 inch (4.31 mm) reference FED-STD-H28 (Screw Thread Standards for Federal Services.)
8. The A.S.A. thread reference is 10-32UNF2A.
9. Terminal shape is unrestricted.
10. Reversed (anode to stud) units shall be marked with an R following the last digit in the type number
11. In accordance with ASME Y14.5M, diameters are equivalent to  $\phi$ x symbology.

| Ltr | Dimensions |      |             |       | Notes |
|-----|------------|------|-------------|-------|-------|
|     | Inches     |      | Millimeters |       |       |
|     | Min        | Max  | Min         | Max   |       |
| CH  |            | .405 |             | 10.29 |       |
| CD  |            | .424 |             | 10.77 |       |
| HF  | .424       | .437 | 10.77       | 11.10 |       |
| HT  | .075       | .175 | 1.90        | 4.44  |       |
| OAH |            | .800 |             | 20.32 |       |
| C   |            | .250 |             | 6.35  | 9     |
| φT  | .060       |      | 1.52        |       |       |
| SL  | .422       | .453 | 10.72       | 11.51 |       |
| K   |            |      |             |       | 3,5,7 |

#### Physical dimensions (DO-203AA, formerly DO-4)

1N1202A, 1N1204A, 1N1206A, 1N3671A, 1N3673A and AR versions, and 1N1124A, 1N1126A, 1N1128A, and RA versions 1N3649, 1N3650, and R versions.

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## Microchip:

[1N1202](#) [1N3673](#) [1N1203AR](#) [1N1203BR](#) [1N1202R](#) [1N1203A](#) [JANTXV1N3673A](#) [JANTX1N3671A](#)  
[JANTXV1N3673AR](#) [JANTXV1N1206AR](#) [JAN1N1206A](#) [JANTX1N3673AR](#) [JANTX1N1206AR](#) [JAN1N3671R](#)  
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