

# RECTIFIER ASSEMBLIES

Three Phase Bridges, 25 Amp,  
Military Approved

JANTX 483-1  
JANTX 483-2  
JANTX 483-3

## FEATURES

- Qualified to MIL-S-19500/483
- Current Rating: 25A
- PIV: from 200 to 600V
- Surge Ratings: 150A
- Only Fused-in-Glass Diodes Used
- Controlled Avalanche Characteristics
- Aluminum Heat Sink Case, Electrically Insulated

## DESCRIPTION

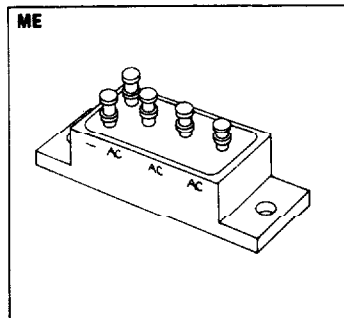
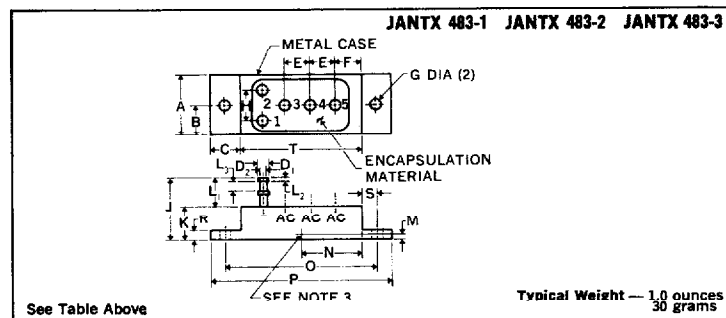
This military high-current three phase bridge series is assembled with diodes which have been subjected to TX type screening tests. This series of bridges offers the utmost in high reliability as normally required in military system design.

## ABSOLUTE MAXIMUM RATINGS

|                                                |                                             |
|------------------------------------------------|---------------------------------------------|
| Peak Inverse Voltage                           | 200 to 600V                                 |
| Maximum Average D.C. Output Current            |                                             |
| @ $T_C = 55^\circ\text{C}$                     | 25A                                         |
| @ $T_C = 100^\circ\text{C}$                    | 18.5A                                       |
| Non-Repetitive Sinusoidal Surge (8.3ms)        |                                             |
| @ $T_C = 55^\circ\text{C}$                     | 150A                                        |
| Operating and Storage Temperature Range, $T_C$ | $-65^\circ\text{C}$ to $+150^\circ\text{C}$ |
| Thermal Resistance Junction to Ambient         | $20^\circ\text{C/W}$                        |
| Junction to Case                               | $2.5^\circ\text{C/W}$                       |

| LTR            | DIMENSIONS |      |             |       |
|----------------|------------|------|-------------|-------|
|                | INCH       |      | MILLIMETERS |       |
|                | MIN        | MAX  | MIN         | MAX   |
| A              | .730       | .770 | 18.54       | 19.56 |
| B              | .355       | .395 | 9.02        | 10.03 |
| C              | .355       | .395 | 9.02        | 10.03 |
| D <sub>1</sub> | .141       | .151 | 3.58        | 3.84  |
| D <sub>2</sub> | .108       | .118 | 2.74        | 3.00  |
| E              | .355       | .395 | 9.02        | 10.03 |
| F              | .230       | .270 | 5.84        | 6.86  |
| G              | .149       | .189 | 3.78        | 4.80  |
| H              | .355       | .395 | 9.02        | 10.03 |
| J              |            | .82  |             | 20.83 |
| K              | .39        | .51  | 9.91        | 12.95 |
| L <sub>1</sub> | .240       | .320 | 6.10        | 8.13  |
| L <sub>2</sub> | .015       | .030 | .38         | .76   |
| L <sub>3</sub> | .100       | .125 | 2.54        | 3.18  |
| M              | .040       | .060 | 1.02        | 1.52  |
| N              | .72        | .78  | 18.29       | 19.81 |
| O              | 1.84       | 1.90 | 46.74       | 48.26 |
| P              | 2.22       | 2.28 | 56.39       | 57.91 |
| R              | .04        | .15  | 2.29        | 3.81  |
| S              | .168       | .208 | 4.27        | 5.28  |
| T              | 1.47       | 1.53 | 37.34       | 38.86 |

## MECHANICAL SPECIFICATIONS



## NOTES:

1. Terminals shall be tinned.
2. Polarity shall be marked as shown on drawing.
3. Point at which  $T_C$  is read (shall be in metal part of case).

**Microsemi Corp.**  
**Watertown**  
The diode experts

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

| Type        | PIV<br>Per<br>Leg | Breakdown<br>Voltage<br>Per Leg<br>@ 50 $\mu$ A | Maximum<br>Forward<br>Voltage Drop<br>Per Leg* | Maximum<br>Leakage<br>Current<br>Per Leg @ PIV |                        |
|-------------|-------------------|-------------------------------------------------|------------------------------------------------|------------------------------------------------|------------------------|
|             |                   |                                                 |                                                | T <sub>C</sub> = 25°C                          | T <sub>C</sub> = 100°C |
|             | Volts             | Volts                                           |                                                | $\mu$ A                                        | $\mu$ A                |
| JANTX 483-1 | 200               | 240                                             | 1.3V @ 39A (pk)                                | 2                                              | 200                    |
| JANTX 483-2 | 400               | 480                                             |                                                |                                                |                        |
| JANTX 483-3 | 600               | 660                                             |                                                |                                                |                        |

\* Maximum forward voltage drop is measured at a pulse width of 8.3ms, duty cycle  $\leq$  2%.

