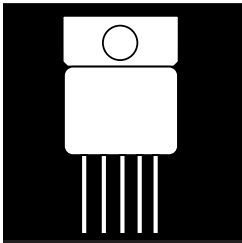


FULL WAVE, SINGLE PHASE RECTIFIER  
BRIDGE IN HERMETIC MO-078AA PACKAGE



10 Amp, 50 To 200 Volts, 35 ns trr

FEATURES

- Very Low Forward Voltage
- Very Fast Recovery Time
- Hermetic 5-Pin Metal Package, JEDEC MO-078AA Outline
- Low Thermal Resistance
- Isolated Package
- High Surge
- AvailableHi-Rel Screened

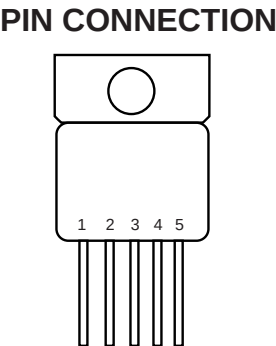
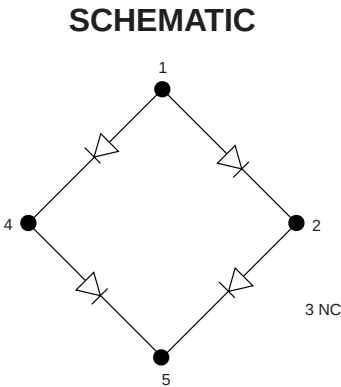
DESCRIPTION

This series of products in a hermetic package is specifically designed for use at power switching frequencies in excess of 100 kHz. The series combines two high efficiency devices into one package, simplifying installation, reducing heat sink hardware, and the need to obtain matched components. These devices are ideally suited for Military applications where small size and a hermetically sealed package is required.

ABSOLUTE MAXIMUM RATINGS (Per Diode) @ 25°C

|                                                               |                     |
|---------------------------------------------------------------|---------------------|
| Peak Inverse Voltage                                          | 50 to 200 V         |
| Maximum Average D.C. Output Current @ T <sub>c</sub> = 100° C | 10 A                |
| Non-Repetitive Surge Current 8.3 ms                           | 150 A               |
| Thermal Resistance:                                           |                     |
| Junction-to-Case                                              | 1.8° C/W            |
| Operating and Storage Temperature Range                       | - 55° C to + 150° C |

3.2

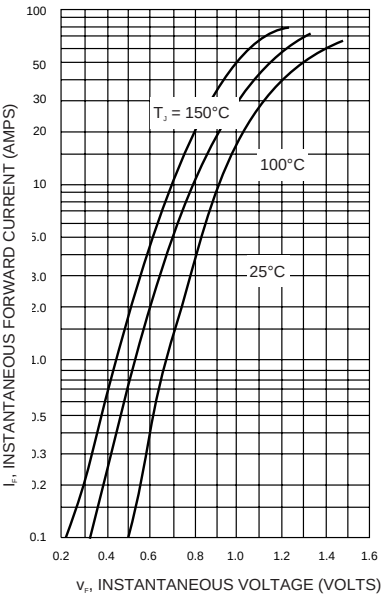


ELECTRICAL CHARACTERISTICS (Per Diode)

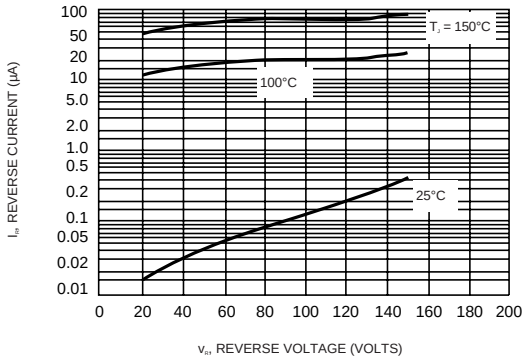
| Type     | PIV | Maximum Forward Voltage <sup>(1)</sup> |                         | Maximum Reverse Current |                         | Maximum Reverse Recovery Time <sup>(2)</sup> |
|----------|-----|----------------------------------------|-------------------------|-------------------------|-------------------------|----------------------------------------------|
|          |     | T <sub>J</sub> = 25° C                 | T <sub>J</sub> = 100° C | T <sub>J</sub> = 25° C  | T <sub>J</sub> = 100° C |                                              |
| OM9022SC | 50  | 1.00 V @<br>10 A                       | .95 V @<br>10 A         | 20 µA                   | 1.0 mA                  | 35 nsec                                      |
| OM9023SC | 100 |                                        |                         |                         |                         |                                              |
| OM9024SC | 150 |                                        |                         |                         |                         |                                              |
| OM9025SC | 200 |                                        |                         |                         |                         |                                              |

(1) Pulse Test: Pulse Width 300ms, Duty Cycle 2.0%.  
(2) Measured in Circuit: I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>REC</sub> = 0.25 A

TYPICAL FORWARD VOLTAGE

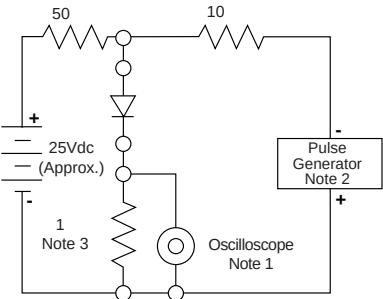


TYPICAL REVERSE CURRENT



3.2

REVERSE-RECOVERY CIRCUIT



- NOTES:
- 1. Oscilloscope: Rise time 3ns: input impedance = 50
  - 2. Pulse Generator: Rise time 8ns: source impedance 10
  - 3. Current viewing resistor, non-inductive, coaxial recommended

MECHANICAL OUTLINE

