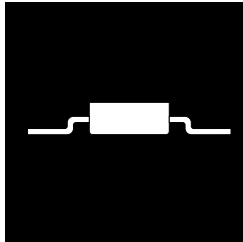


ISOLATED SURFACE MOUNT HIGH EFFICIENCY CENTER-TAP RECTIFIER



Hermetic Surface Mount Package
12 Amp, 50V to 600V, 35 to 75 nsec

FEATURES

- Hermetic Surface Mount Package
- Very Low Forward Voltage
- Very Fast Recovery Time
- Low Thermal Resistance
- Isolated Package
- High Surge
- Center-Tap Configuration
- Available Screened To MIL-S-19500, TX, TXV and S Levels

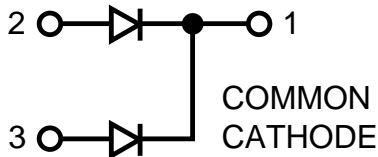
DESCRIPTION

This series of products in a hermetic surface mount 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. Common cathode is standard.

ABSOLUTE MAXIMUM RATINGS (Per Diode) @ 25°C

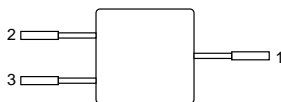
| | |
|---|---------------------|
| Peak Inverse Voltage | 50 to 600 V |
| Maximum Average D.C. Output Current @ $T_C = 100^\circ\text{C}$ | 6 A |
| Surge Current (Non-Repetitive 8.3 msec) | 50 A |
| Operating and Storage Temperature Range | - 55° C to + 150° C |
| Max. Lead Solder Temperature for 5 Sec | 225°C |

SCHEMATIC

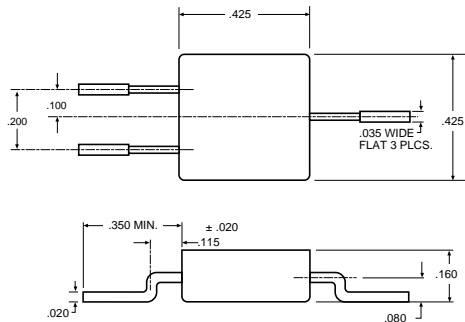


Common cathode is standard. Contact the factory for performance characteristics for common anode and doubler.

PIN CONNECTION



MECHANICAL OUTLINE



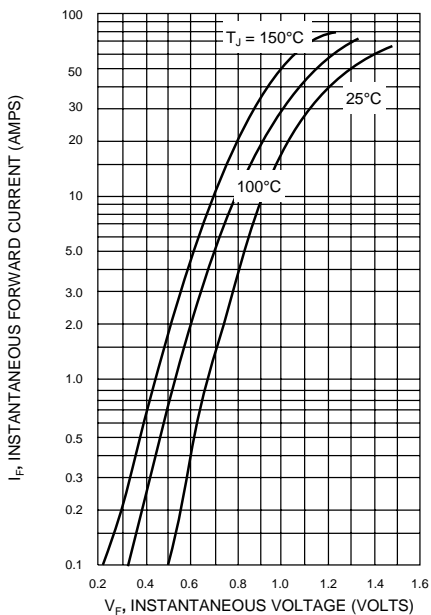
3.5

ELECTRICAL CHARACTERISTICS (Per Leg)

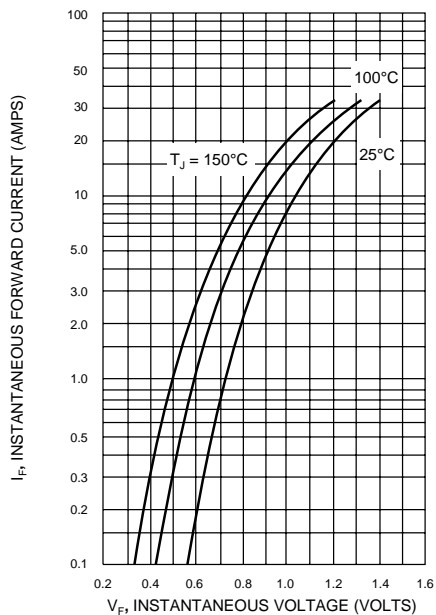
| Type | PIV | Maximum Forward Voltage ⁽¹⁾ (Volts) @ | | Maximum Reverse Current @ PIV | | Maximum Reverse Recovery Time* | Maximum Thermal Resist. R _{θJC} |
|----------|-----|---|-------------------------|----------------------------------|-------------------------|-----------------------------------|---|
| | | T _J = 25° C | T _J = 100° C | T _J = 25° C | T _J = 100° C | | |
| OM5250SM | 50 | 1.0 V @ 6 A | .950 V @ 6 A | 20 μA | 600 μA | 35 nsec | 2.0 |
| OM5251SM | 100 | | | | | | |
| OM5252SM | 150 | | | | | | |
| OM5253SM | 200 | 1.40 V @ 6 A | 1.10 V @ 6 A | 40 μA | 1.0 mA | 50 nsec | 1.8 |
| OM5254SM | 300 | | | | | | |
| OM5255SM | 400 | | | | | | |
| OM5256SM | 600 | 1.55 @ 6 A | 1.25 @ 6 A | 40 μA | 2.0 mA | 75 nsec | |

*Measured in Circuit: I_F = 0.5 A, I_R = 1.0 A, I_{REC} = 0.25 A
 (1) Pulse Test: Pulse width = 300μs, Duty cycle 2.0%.

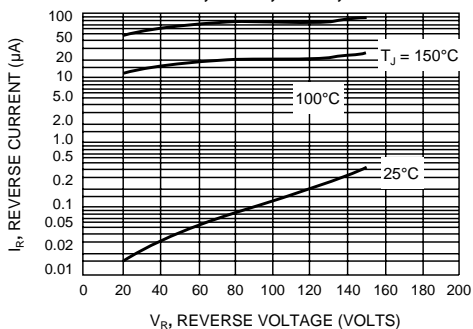
**50 V TO 200 V
TYPICAL FORWARD VOLTAGE
OM5250, 5251, 5252, 5253**



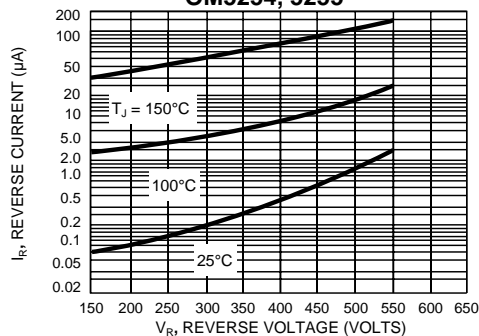
**300 V & 400 V
TYPICAL FORWARD VOLTAGE
OM5254, 5255**



**50 V TO 200 V
TYPICAL REVERSE CURRENT
OM5250, 5251, 5252, 5253**



**300 V & 400 V
TYPICAL REVERSE CURRENT
OM5254, 5255**



3.5