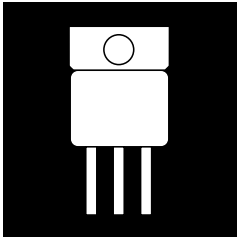


OM5204SC/RC/DC OM5206SC/RC/DC OM5219SC/RC/DC OM5235SC/RC/DC  
 OM5205SC/RC/DC OM5218SC/RC/DC OM5220SC/RC/DC

# HERMETIC JEDEC TO-258AA HIGH EFFICIENCY, CENTER-TAP RECTIFIER



**30 Amp, 50 To 600 Volts, 35 To 50 ns trr**

## FEATURES

- Very Low Forward Voltage
- Very Fast Switching Time
- Hermetic Metal Package, JEDEC TO-258AA
- Low Thermal Resistance
- Isolated Package
- High Surge
- Available Screened To MIL-S-19500, TX, TXV And S Levels

## DESCRIPTION

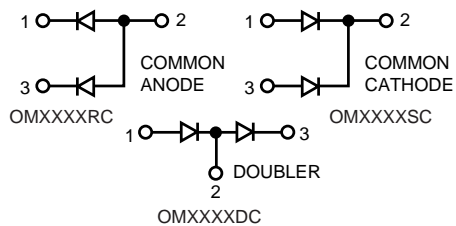
This series of products in a hermetic package is specifically designed for use at power switching frequencies in excess of 100 kHz. The series combines two high efficiency devices into one package, simplifying installation, reducing heat sink hardware, and the need to obtain matched components. These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

## ABSOLUTE MAXIMUM RATINGS (Per Diode) @ 25°C

Peak Inverse Voltage . . . . . 50 to 600 V  
 Maximum Average D.C. Output Current @  $T_c = 100^\circ\text{C}$  . . . . . 15 A  
 Non-Repetitive Sinusoidal Surge Current 8.3 ms . . . . . 150 A  
 Operating and Storage Temperature Range . . . . . - 55° C to + 150° C

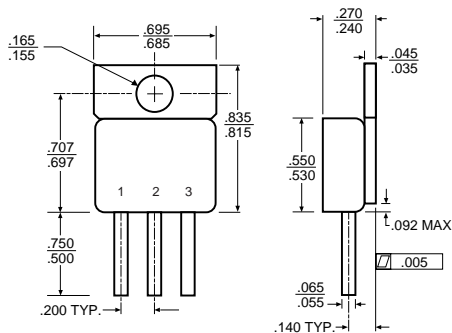
3.2

## SCHEMATIC



Common cathode is standard. Contact the factory for performance characteristics for common anode and doubler. Z-Pak also available.

## MECHANICAL OUTLINE



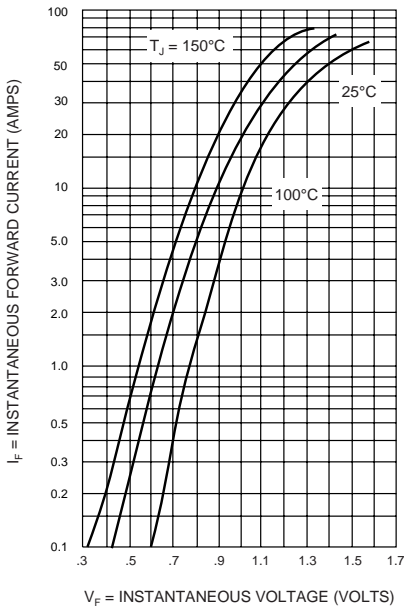
OM5204SC/RC/DC - OM5235SC/RC/DC

**ELECTRICAL CHARACTERISTICS (Per Diode)**

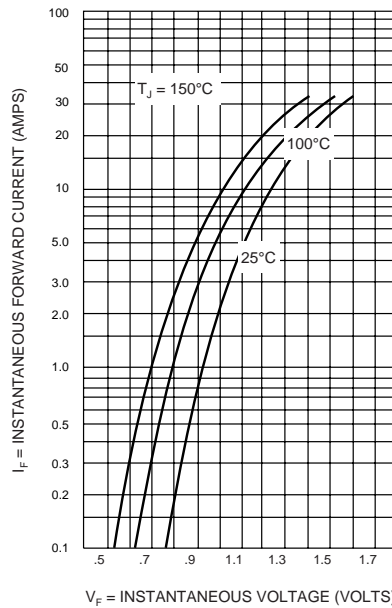
| Type     | PIV | Maximum Forward Voltage (Volts) @ <sup>(1)</sup> |                         | Maximum Reverse Current @ PIV |                         | Maximum Reverse Recovery Time (2) | Maximum Thermal Resist. R <sub>θJC</sub> |
|----------|-----|--|-------------------------|-------------------------------|-------------------------|-----------------------------------|--|
|          |     | T <sub>j</sub> = 25° C                           | T <sub>j</sub> = 100° C | T <sub>j</sub> = 25° C        | T <sub>j</sub> = 100° C |                                   |  |
| OM5204XX | 50  | 1.1 V @ 15 A                                     | 0.90 V @ 15 A           | 20 μA                         | 1.0 mA                  | 35 nsec                           | 2.0                                      |
| OM5205XX | 100 |  |                         |                               |                         |                                   |  |
| OM5206XX | 150 |  |                         |                               |                         |                                   |  |
| OM5218XX | 200 |  |                         |                               |                         |                                   |  |
| OM5219XX | 300 | 1.35 V @ 15 A                                    | 1.15 V @ 15 A           | 20 μA                         | 1.0 mA                  | 50 nsec                           | 1.8                                      |
| OM5220XX | 400 |  |                         |                               |                         |                                   |  |
| OM5235XX | 600 | 1.6 V @ 15 A                                     | 1.4 V @ 15 A            | 20 μA                         | 2.0 mA                  | 50 nsec                           |  |

(1) Pulse Test: Pulse Width = 300μs, 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

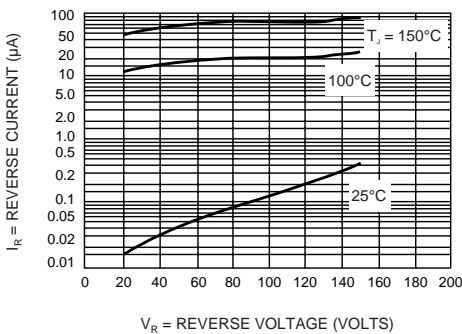
**50 V TO 200 V  
TYPICAL FORWARD VOLTAGE  
OM5204, 5205, 5206, 5218**



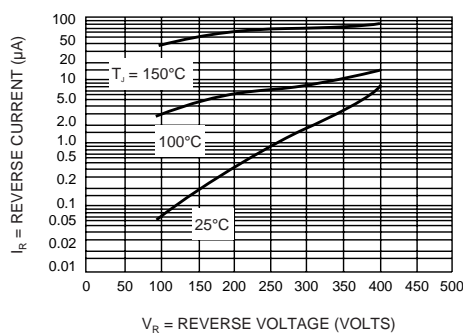
**300 V & 400 V  
TYPICAL FORWARD VOLTAGE  
OM5219, 5220**



**TYPICAL REVERSE CURRENT  
OM5204, 5205, 5206, 5218**



**TYPICAL REVERSE CURRENT  
OM5219, 5220, 5235**



3.2