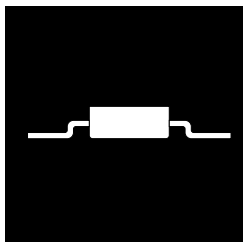


# ISOLATED SURFACE MOUNT HIGH EFFICIENCY CENTER-TAP RECTIFIER



**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

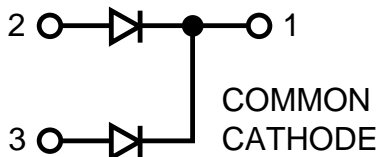
## DESCRIPTION

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

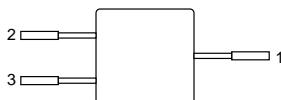
Peak Inverse Voltage .....	50 to 600 V
Maximum Average D.C. Output Current @ $T_C = 100^\circ\text{C}$ .....	6 A
Surge Current (Non-Repetitive 8.3 msec) .....	50 A
Operating and Storage Temperature Range .....	- 55° C to + 150° C
Max. Lead Solder Temperature for 5 Sec .....	225°C

## SCHEMATIC

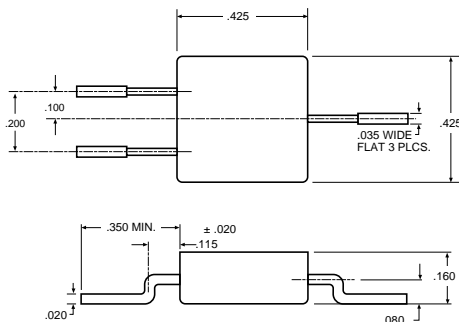


Common cathode is standard. Contact the factory for performance characteristics for common anode and doubler.

## PIN CONNECTION



## MECHANICAL OUTLINE



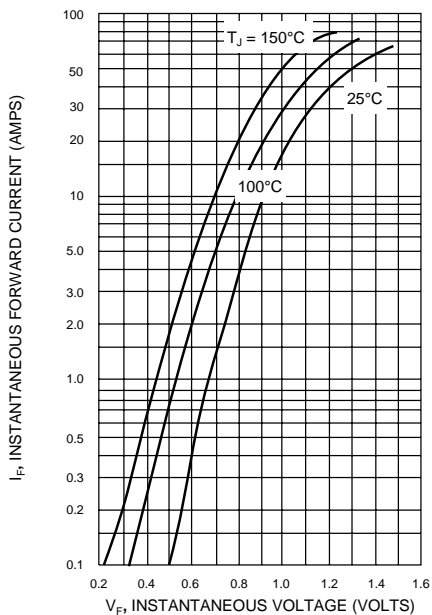
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**ELECTRICAL CHARACTERISTICS (Per Leg)**

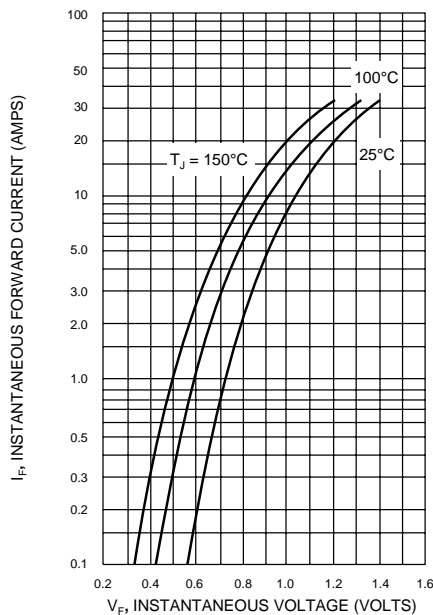
Type	PIV	Maximum Forward Voltage <sup>(1)</sup> (Volts) @		Maximum Reverse Current @ PIV		Maximum Reverse Recovery Time*	Maximum Thermal Resist. R <sub>θJC</sub>
		T <sub>J</sub> = 25° C	T <sub>J</sub> = 100° C	T <sub>J</sub> = 25° C	T <sub>J</sub> = 100° C		
OM5250SM	50	1.0 V @ 6 A	.950 V @ 6 A	20 μA	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<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>REC</sub> = 0.25 A  
 (1) Pulse Test: Pulse width = 300μs, Duty cycle 2.0%.

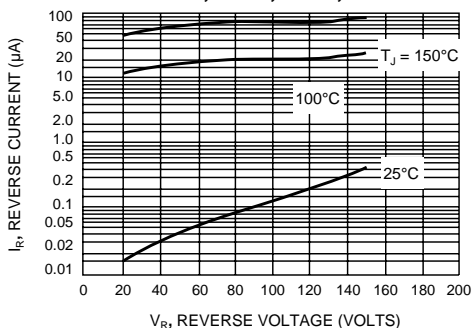
**50 V TO 200 V  
TYPICAL FORWARD VOLTAGE  
OM5250, 5251, 5252, 5253**



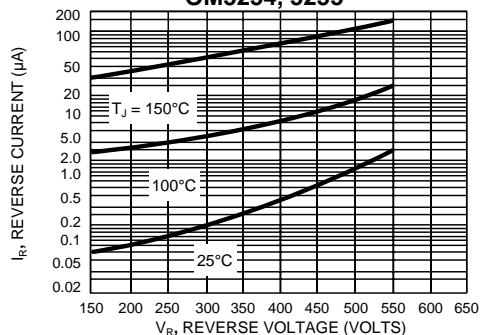
**300 V & 400 V  
TYPICAL FORWARD VOLTAGE  
OM5254, 5255**



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



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



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