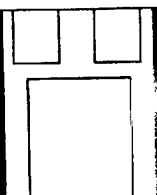


**HERMETIC SURFACE MOUNT RECTIFIERS
HIGH EFFICIENCY, CENTER-TAP**

T-03-19

43E D ■ 6789073 0000859 2 ■ OMNI

**30 Amp, 50 To 600 Volts, 35 To 50 ns trr
Ultra Fast Rectifier Center-Tap****FEATURES**

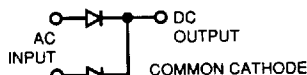
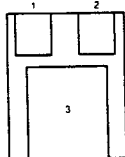
- Surface Mount Hermetic Package
- Very Low Forward Voltage
- Very Fast Switching Time
- Low Thermal Resistance
- High Current
- Small Size

DESCRIPTION

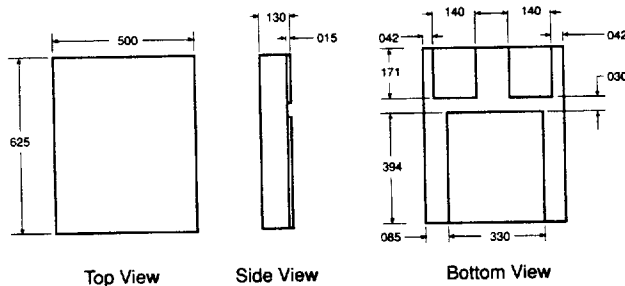
This series of surface mounted power devices is specifically designed for use at power switching frequencies in excess of 100 kHz. The series combines two high efficiency rectifiers in a center-tap configuration into one package, simplifying installation, reducing size and weight, and the need to obtain matched components. These devices are ideally suited for Military applications where small size and a hermetically sealed package is required. Common cathode only.

ABSOLUTE MAXIMUM RATINGS (Per Diode)

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	90 A
Thermal Resistance, Junction-to-Case	1.5° C/W
Operating and Storage Temperature Range	- 55° C to + 150° C
Lead Temperature at Package (For 5 Seconds)	225° C

SCHEMATIC**PIN CONNECTION**

Pin 1: AC
Pin 2: AC
Pin 3: DC

MECHANICAL OUTLINE

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ELECTRICAL CHARACTERISTICS (Per Diode)

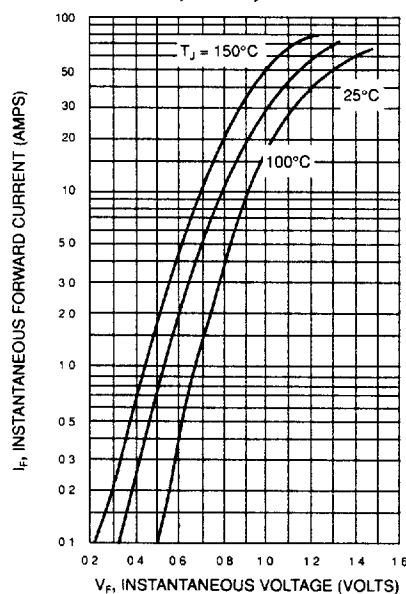
OMNIREL CORP

Type	PIV	Maximum Forward Voltage ⁽¹⁾ (Volts) @		Maximum Reverse Current @ PIV		Maximum Reverse Recovery Time ⁽²⁾
		$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	$T_J = 25^\circ\text{C}$	$T_J = 100^\circ\text{C}$	
OM5242NM	50	1.10 V @ 15 A	0.90 V @ 15 A	10 μA	1.0 mA	35 nsec
OM5243NM	100					
OM5244NM	150					
OM5245NM	200	1.40 V @ 15 A	1.20 V @ 15 A	25 μA	1.0 mA	50 nsec
OM5246NM	300					
OM5247NM	400					
OM5248NM	600	1.60V @ 15A	1.40V @ 15A	25 μA	2.0 mA	50 nsec

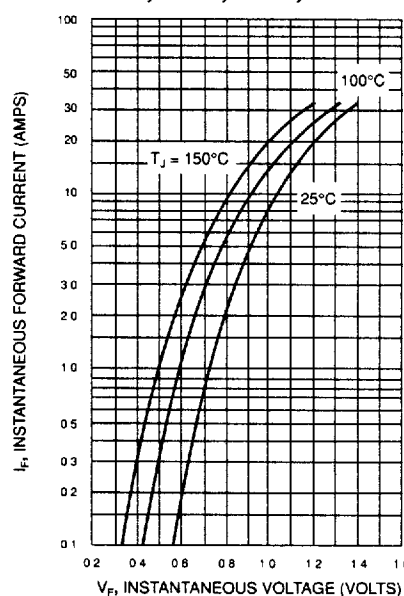
(1) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.(2) Measured in Circuit: $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{\text{REC}} = 0.25\text{ A}$

Each Anode Pin Limited to 15 Amp Average, 30 Amp Per Package.

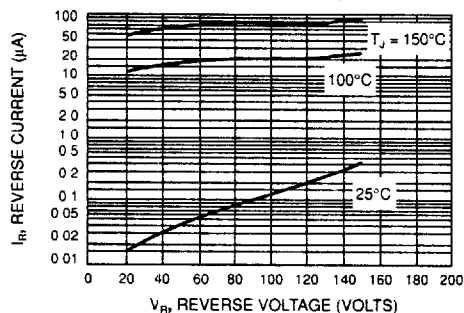
50 V TO 200 V
TYPICAL FORWARD VOLTAGE
OM5242, 5243, 5244



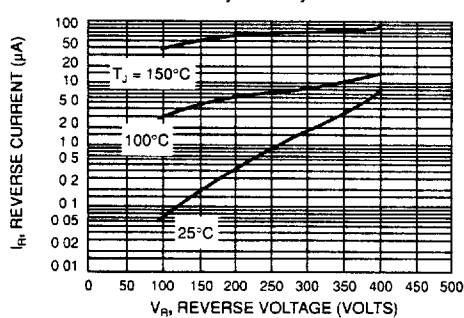
300 V TO 600 V
TYPICAL FORWARD VOLTAGE
OM5245, 5246, 5247, 5248



TYPICAL REVERSE CURRENT
OM5242, 5243, 5244, 5245



TYPICAL REVERSE CURRENT
OM5246, 5247, 5248



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