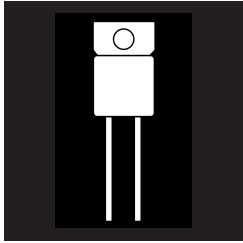


OM5001ST OM5003ST OM5005ST OM5007ST
 OM5002ST OM5004ST OM5006ST

15 AMP ULTRA FAST RECTIFIER IN SMALL HERMETIC PACKAGE



15 Amp, 50 To 600 Volts, 35 To 50 ns trr

FEATURES

- Small Size
- Very Low Forward Voltage
- Very Fast Switching Time
- Hermetic Isolated Package
- High Surge
- Low Thermal Resistance
- Available Screened To MIL-S-19500, TX, TXV And S Levels

DESCRIPTION

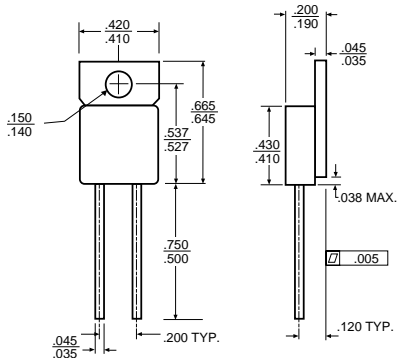
This series of products in a hermetic package is specifically designed for use at power switching frequencies in excess of 100 kHz. This series of ultra fast rectifiers is packaged in a small easy-to-use hermetic package replacing conventional DO-4 and TO-3 packaging. These devices are ideally suited for Hi-Rel applications where small size and a hermetically sealed package are required. All devices are available Hi-Rel screened in Omnirel's facility.

ABSOLUTE MAXIMUM RATINGS @ 25°C

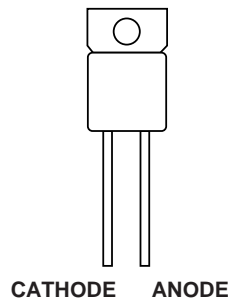
Peak Inverse Voltage 50 to 600 V
 Maximum Average D.C. Output Current @ $T_c = 100^\circ\text{C}$ 15 A
 Non-Repetitive Sinusoidal Surge Current 8.3 ms 180 A
 Operating and Storage Temperature Range - 55° C to +150° C

3.2

MECHANICAL OUTLINE



PIN CONNECTION



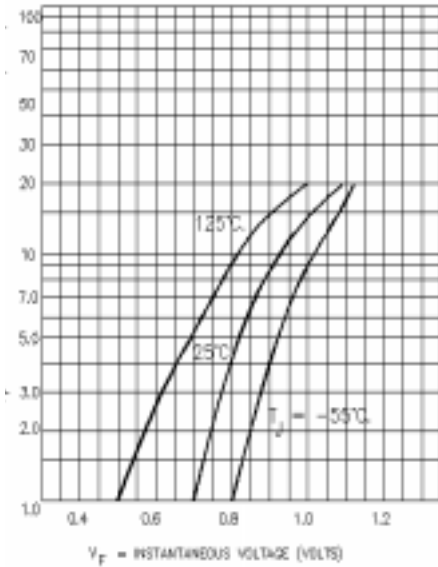
OM5001ST - OM5007ST

ELECTRICAL CHARACTERISTICS

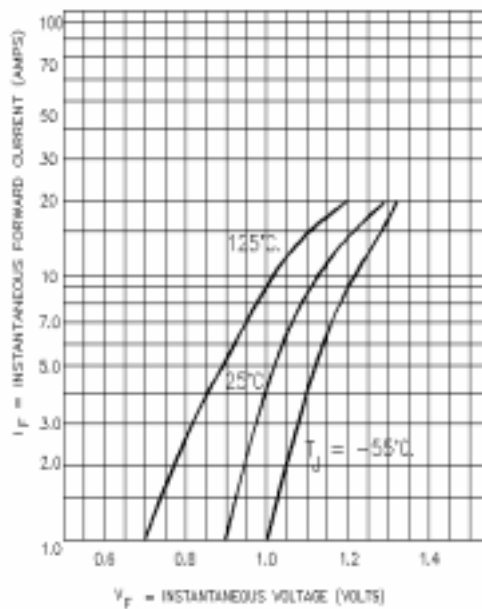
Type	PIV	Maximum Forward Voltage ⁽¹⁾		Maximum Reverse Current		Maximum Reverse Recovery Time ⁽²⁾	Maximum Thermal Resist. $R_{\theta JC}$
		$T_j = 25^\circ\text{C}$	$T_j = 100^\circ\text{C}$	$T_j = 25^\circ\text{C}$	$T_j = 100^\circ\text{C}$		
OM5001ST	50	1.1V @ 15A	0.90V @ 15A	20 μA	1 mA	35 nsec	2.0
OM5002ST	100						
OM5003ST	150						
OM5004ST	200						
OM5005ST	300	1.35V @ 15A	1.15V @ 15A	20 μA	1 mA	50 nsec	1.8
OM5006ST	400						
OM5007ST	600	1.6V @ 15 A	1.4V @ 15A	20 μA	2 mA	50 nsec	1.8

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

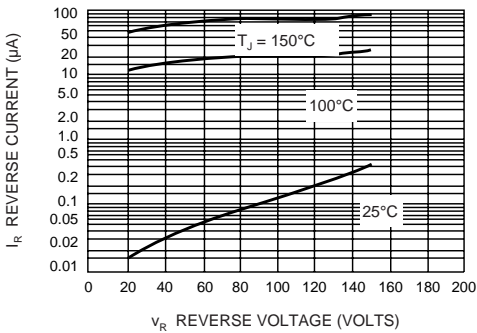
**50 V TO 200 V
TYPICAL FORWARD VOLTAGE
OM5001, 5002, 5003, 5004**



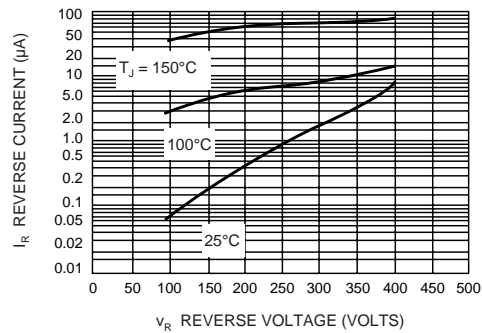
**300 V TO 400V
TYPICAL FORWARD VOLTAGE
OM5005, 5006**



**TYPICAL REVERSE CURRENT
OM5001, 5002, 5003, 5004**



**TYPICAL REVERSE CURRENT
OM5005, 5006**



3.2