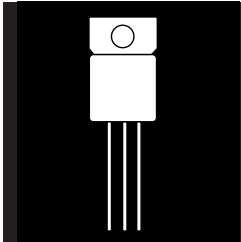


OM5301ST/RT/DT OM5303ST/RT/DT
OM5302ST/RT/DT OM5304ST/RT/DT

20 AMP ULTRA FAST, ULTRA LOW FORWARD VOLTAGE CENTER-TAP POWER RECTIFIER



20 Amp, 50 To 200 Volts, 35 ns trr

FEATURES

- Small Size/JEDEC TO-257AA Outline
- Very Low Forward Voltage
- Very Fast Switching Time
- Hermetic And Isolated Metal Package
- Available As Common Cathode Or Common Anode
- Low Thermal Resistance
- Available Screened To MIL-S-19500, TX, TXV, And S-Levels

DESCRIPTION

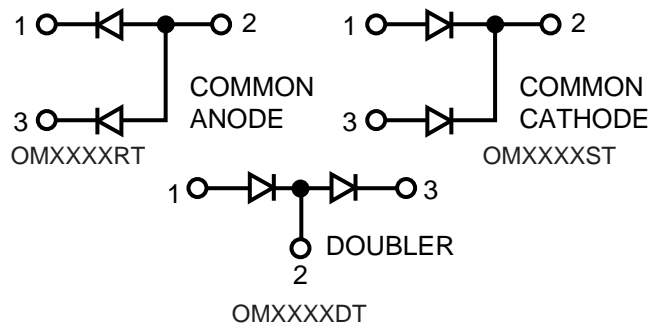
This series of products in a hermetic package is specifically designed for use at power switching frequencies in excess of 100 kHz. This series of ultra fast rectifiers is packaged in a small easy-to-use JEDEC TO-257AA package, replacing conventional DO-4 and TO-3 packaging. These devices are ideally suited for demanding applications where small size and a hermetically sealed package are required. All devices are available Hi-Rel screened in Omnirel's facility. (See Omnirel's OM803 Hi-Rel screening program.)

ABSOLUTE MAXIMUM RATINGS (Per Diode) @ 25°C

Peak Inverse Voltage 50 to 200 V
Maximum Average D.C. Output Current 10 A
Non-Repetitive Sinusoidal Surge Current 8.3 ms 180 A
Thermal Resistance, Junction-to-Case 2.0° C/W
Operating and Storage Temperature Range - 55° C to + 150° C

3.2

SCHEMATIC



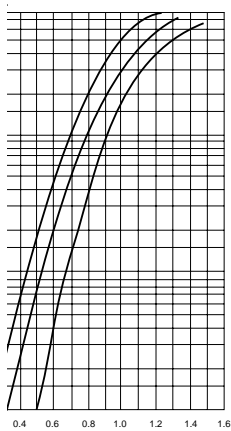
Common cathode is standard. Contact the factory for performance characteristics for common anode and doubler.
Z-Tab package also available.

ELECTRICAL CHARACTERISTICS (Per Diode)

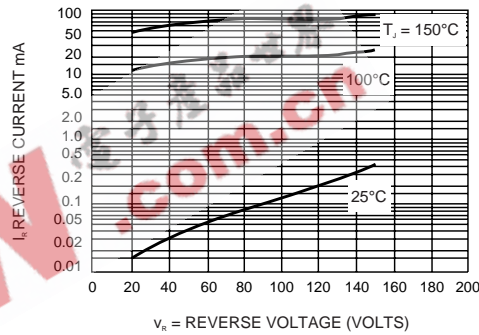
Type	PIV	Maximum Forward Voltage (Volts) @ (1)		Maximum Reverse Current @ PIV		Maximum Reverse Recovery Time (2)
		T _j = 25° C	T _j = 100° C	T _j = 25° C	T _j = 100° C	
OM5301XX	50	1.00V@ 10A	0.85V @ 10A	20 μA	1 mA	35 nsec
OM5302XX	100					
OM5303XX	150					
OM5304XX	200					

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

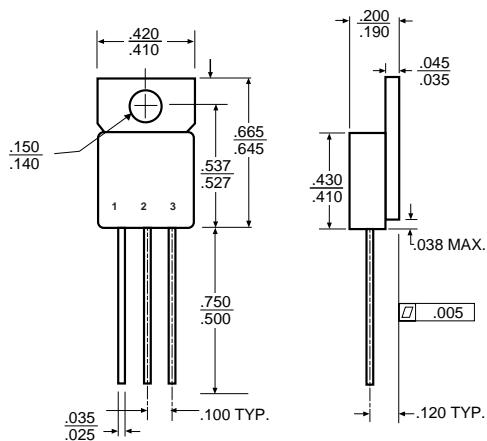
TYPICAL FORWARD VOLTAGE



TYPICAL REVERSE CURRENT



MECHANICAL OUTLINE



JEDEC TO-257AA