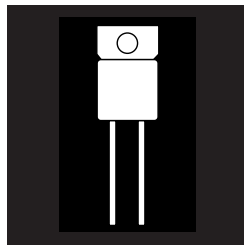


# HERMETIC JEDEC TO-257AA HIGH EFFICIENCY, SOFT RECOVERY RECTIFIER



**14 Amp, 400 & 600 Volts, 35 nsec trr**

## FEATURES

- Small Size
- Ultra Fast Recovery
- Soft Recovery Behavior
- Extremely Low Losses At High Switching Speeds
- Low  $I_{RM}$  Rating
- Hermetic And Isolated Package
- Available Screened To MIL-S-19500, TX, TXV And S Levels

## DESCRIPTION

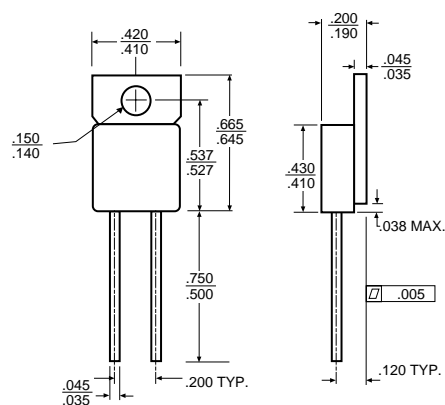
This soft recovery, high speed rectifier is ideally suited for high performance in high voltage switching applications. The performance of this rectifier minimizes losses in power conversion and motor control circuits complementing the switching characteristics of power MOSFETs, IGBTs, and bipolar transistors.

## ABSOLUTE MAXIMUM RATINGS $T_C = 25^\circ\text{C}$

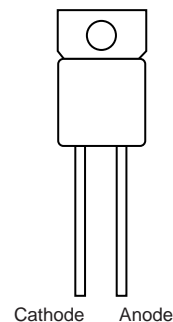
Peak Inverse Voltage .....	400 & 600 V
Maximum Average D.C. Output Current @ $T_C = 100^\circ\text{C}$ .....	14 A
Surge Current (Non-Repitive 8.3 nsec) .....	90 A
Thermal Resistance, Junction-To-Case .....	2.5° C/W
Operating and Storage Temperature Range .....	-55°C to +150°C

3.2

## MECHANICAL OUTLINE



## PIN CONNECTION



OM5008ST - OM5009ST

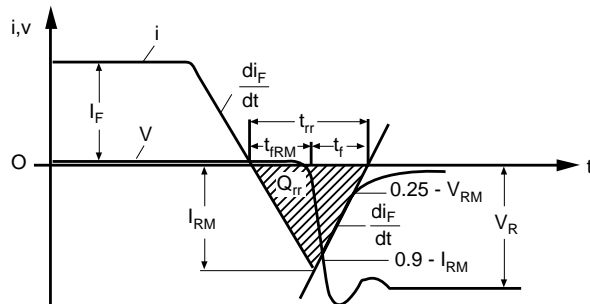
**ELECTRICAL CHARACTERISTICS**

Type	PIV	Maximum Forward Voltage @ 14 A		Maximum Reverse Current @ .8x PIV		Maximum Reverse Recovery Time
		T <sub>J</sub> = 25° C	T <sub>J</sub> = 150° C	T <sub>J</sub> = 25° C	T <sub>J</sub> = 125° C	
OM5008ST	400	1.75 V	1.65 V	100 μA	3.0 mA	35
OM5009ST	600					

**TURN-OFF CHARACTERISTICS**

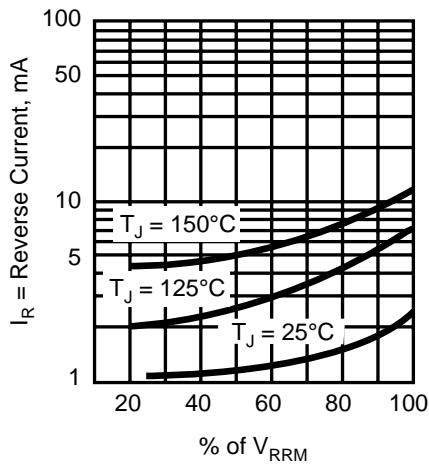
Symbols	Test Conditions	Min.	Typ.	Max.	Units
T <sub>rr</sub>	I <sub>F</sub> = 0.5 A; I <sub>R</sub> = 1 A; T <sub>J</sub> = 25°C I <sub>F</sub> = 1 A; di <sub>F</sub> /dt = -15 A/μs; V <sub>R</sub> = 30 V; T <sub>J</sub> = 25°C	-	-	35	ns
I <sub>RM</sub>	V <sub>R</sub> = 350 V; I <sub>F</sub> = 12 A L = .05 μH; T <sub>J</sub> = 100°C; di <sub>F</sub> /dt = -100 A/μs	-	4	6	A

**DEFINITION OF TURN-OFF CHARACTERISTICS**



3.2

**TYPICAL REVERSE CURRENT**



**TYPICAL FORWARD VOLTAGE**

