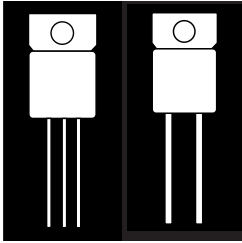


# Preliminary Data Sheet

OM7659ST  
OM7660ST

OM7661ST

## VOLTAGE CONVERTER IN AN ISOLATED HERMETIC PACKAGE



Voltage Converter, 1 Amp, 5V To 3.0V, 3.3V  
Or Adjustable Output

### FEATURES

- Hermetic Package, Isolated Substrate
- Mil-Spec Temperature Range
- External Compensating Components Not Required
- Drops 5V To 3.0V, 3.3V, Adjustable
- 1.0 Amp Output
- Available Hi-Rel Screened

### DESCRIPTION

These voltage converters are both fixed output voltage and adjustable. They operate with a regulated 5V input and drop the input to 3.0V or 3.3V over an output current range from 10mA to 1.0A. The fixed voltage output devices are two terminal devices and the adjustable version is a three terminal device which permits output voltage trimming.

### ABSOLUTE MAXIMUM RATINGS @ 25°C

Power Dissipation ( $P_d$ )	2 W
Continuous Current	1 A
Operating and Storage Temperature Range	- 55°C to + 150° C
Thermal Resistance, $R_{\theta JC}$ , Junction-to-Case, Typical	5° C/W
Lead Soldering Temperature, 10 second time limit	260° C

3.3

OM7659ST - OM7661ST

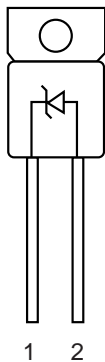
**ELECTRICAL CHARACTERISTICS**

Part No.	Symbol	Test Conditions			Test Limits			Units	
		V <sub>IN</sub>	I <sub>o</sub>	T <sub>J</sub>	Min.	Typ.	Max.		
OM7659ST	V <sub>O</sub>	5V	500mA	25°C	2.90	3.00	3.10	V	
			10mA to 1A	-55°C to 125°C	2.80		3.20		
OM7660ST			500mA	25°C	3.20	3.30	3.40		
			10mA to 1A	-55°C to 125°C	3.10		3.50		
OM7661ST	V <sub>REF</sub>		500mA	25°C	1.20	1.25	1.30		
			10mA to 1A	-55°C to 125°C	1.10		1.40		
All	REG <sub>(LOAD)</sub>		10mA to 1A	25°C		0.5	1.15		%V <sub>O</sub>
	T <sub>C</sub> <sup>1</sup>		500mA	25 to 125°C		0.005	0.01		%V <sub>O</sub> /°C

Note: 1. Temperature Coefficient

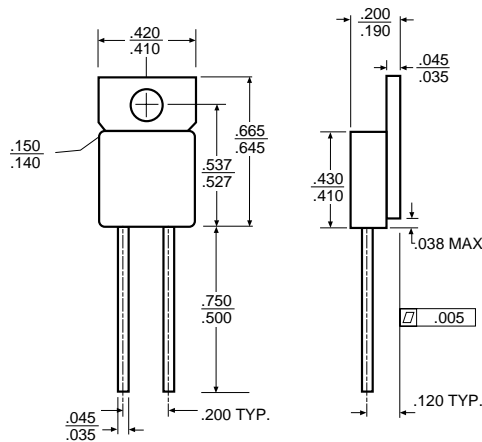
**OM7659ST/OM7660ST**

**Pin Connection**



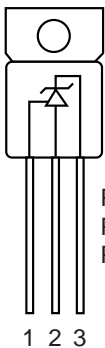
Pin 1: Output  
Pin 2: Input

**Mechanical Outline**



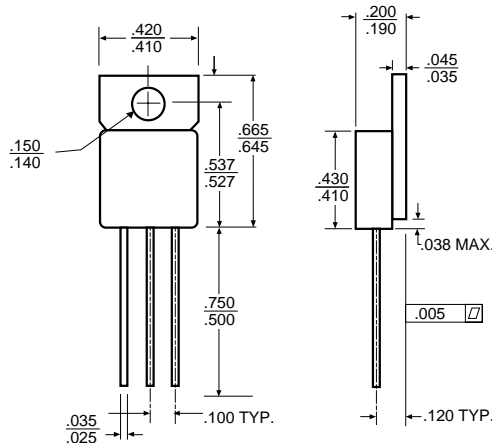
**OM7661ST**

**Pin Connection**

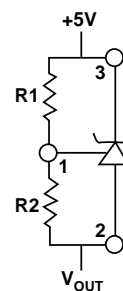


Pin 1: Adj.  
Pin 2: Output  
Pin 3: Input

**Mechanical Outline**



**Adjusting**



$$V_{DROPP} = V_{REF}(1+R1/R2)$$

$$V_{OUT} = V_{IN} - V_{DROPP}$$

$$R1 + R2 \leq \frac{V_{DROPP}}{300\mu A}$$