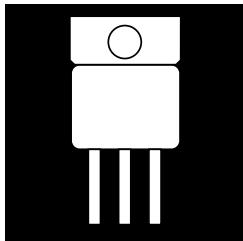


OM7662SC OM7664SC  
OM7663SC

## ISOLATED HERMETIC TO-258AA FIXED POSITIVE VOLTAGE REGULATORS



**Three Terminal, Fixed Positive Voltage, 3.0 Amp  
Precision Positive Regulator In Hermetic  
JEDEC TO-258AA Package**

### FEATURES

- Isolated Hermetic Package. JEDEC TO-258AA Outline
- Output Voltages: 5V, 12V And 15V (Other Voltages Available)
- Output Voltages Set Internally To  $\pm 2\%$  ( $\pm 1\%$  Available)
- Built-In Thermal Overload Protection
- Short Circuit Current Limiting
- Product Is Available Hi-Rel Screened

### DESCRIPTION

These three terminal positive regulators are supplied in a hermetically sealed metal package whose outline is similar to the industry standard TO-247 plastic package. All protective features are designed into the circuit, including thermal shutdown, current limiting and safe-area control. With heat sinking, they can deliver over 3.0 amps of output current. These units feature  $\pm 2\%$  initial voltage tolerance, with 0.3% load regulation and .01% line regulation.

### ABSOLUTE MAXIMUM RATINGS @ 25°C

Input to Output Voltage Differential ..... +35V

Operating Junction Temperature Range ..... - 55°C to + 150°C

Storage Temperature Range ..... - 55°C to + 150°C

Typical Power/Thermal Characteristics:

Rated Power @ 25°C

$T_C$  ..... 25W

$T_A$  ..... 3W

Thermal Resistance:

$q_{JC}$  ..... 3.5°C/W

$q_{JA}$  ..... 42°C/W

3.3

**Note:** For  $\pm 1\%$  device, add letter "A" in front of part number (e.g. OMA 7662SC).



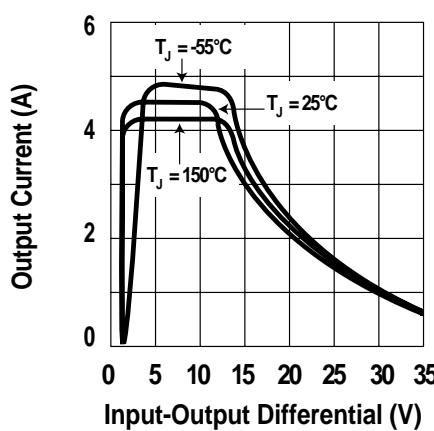
## OM7662SC - OM7664SC

### ELECTRICAL CHARACTERISTICS: 15 VOLT OUTPUT (OM7664SC)

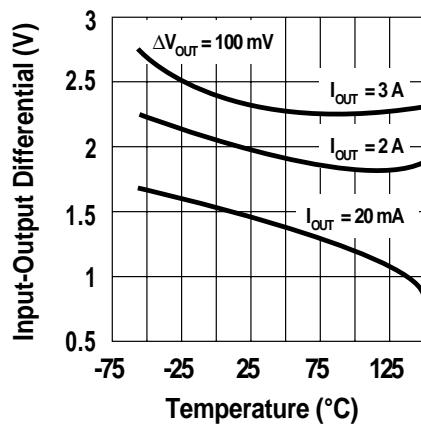
Parameter	Test Conditions	Min.	Typ.	Max.	Units
$V_{OUT}$	$T_J = 25^\circ C, V_{IN} = 23 V, I_O = 10 mA$	14.70	15.00	15.3	V
	18 V $V_{IN}$ 35 V, 10 mA $I_O$ 3 A; $P$ 25 W	14.41	15.00	15.60	
Line Regulation (Note 1)	18 V $V_{IN}$ 35 V	-	.03	.06	%/V
Load Regulation	10 mA $I_O$ 3.0 A	-	75	165	mV
Thermal Regulation	$T_A = 25^\circ C, 20 mS$ Pulse	--	.005	.013	%/W
Ripple Rejection	$f = 120 Hz, V_{OUT} = 15 V$		65		dB
Mminimum Load		-	-	10	mA
Current Limit	$V_{IN} = 23 V, T_J = 25^\circ C$	3	4.5	-	A
Temperature Stability		-	1.0	2.0	%
RMS Output Noise	$T_A = 25^\circ C, 10 Hz \text{ } f \text{ } 10 kHz$	-	.001	-	%

Note 1: Regulation is measured at a constant  $T_J$ . Changes in output due to heating must be taken into account separately.  
Pulse testing with low duty cycle is used.

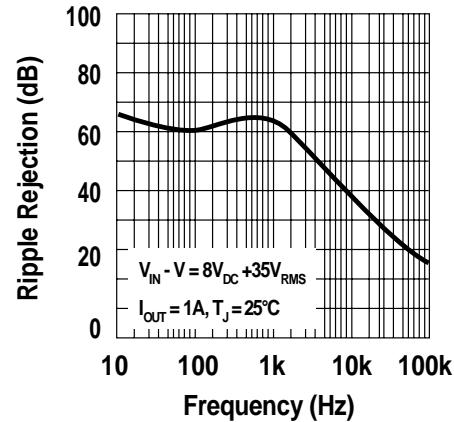
### Current Limit



### Dropout Voltage



### Ripple Rejection

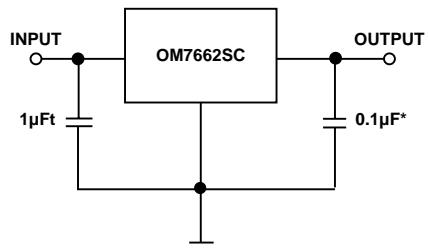


3.3

## OM7662SC - OM7664SC

### TYPICAL APPLICATIONS

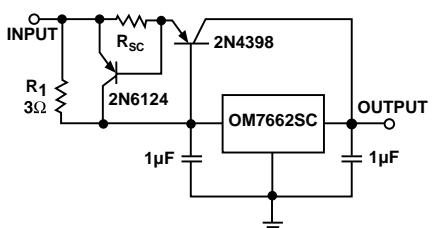
#### Fixed Output Regulator



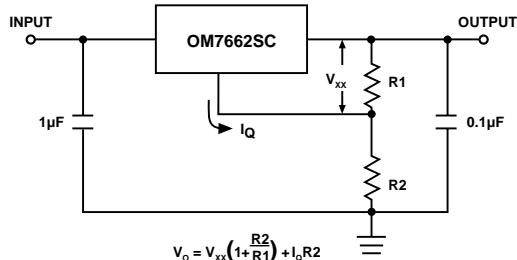
\*Increasing value of output capacitor improves system transient response.

tRequired only if regulator is located an appreciable distance from power supply filter.

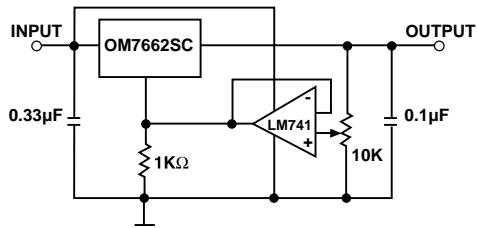
#### High Output Current, Short Circuit Protected



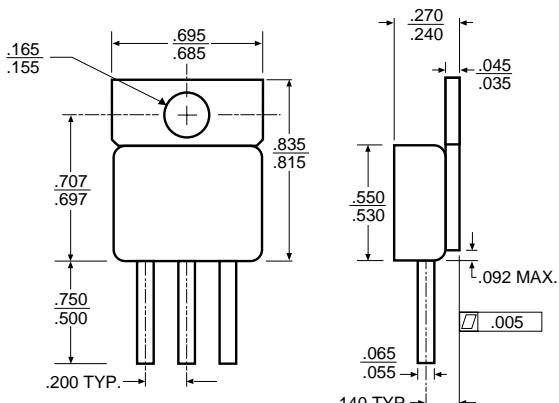
#### Circuit For Increasing Output Voltage



#### Adjustable Output Regulator, 7 To 30 Volts



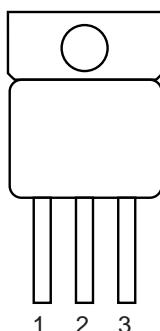
### MECHANICAL OUTLINE



#### NOTES:

- Case is metal/hermetically sealed
- Isolated Tab

### PIN CONNECTION



Front View

- Pin 1: Ground  
Pin 2: Output  
Pin 3: Input

This device is also available in a TO-257AA package. Call the factory for test conditions and limits.