

### Description

The GM7900 series of fixed-negative voltage monolithic integrated circuit voltage regulators is designed to complement Series GM7800 in a wide range of applications.

These applications include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. Each of these regulators can deliver up to 1.5A of output current.

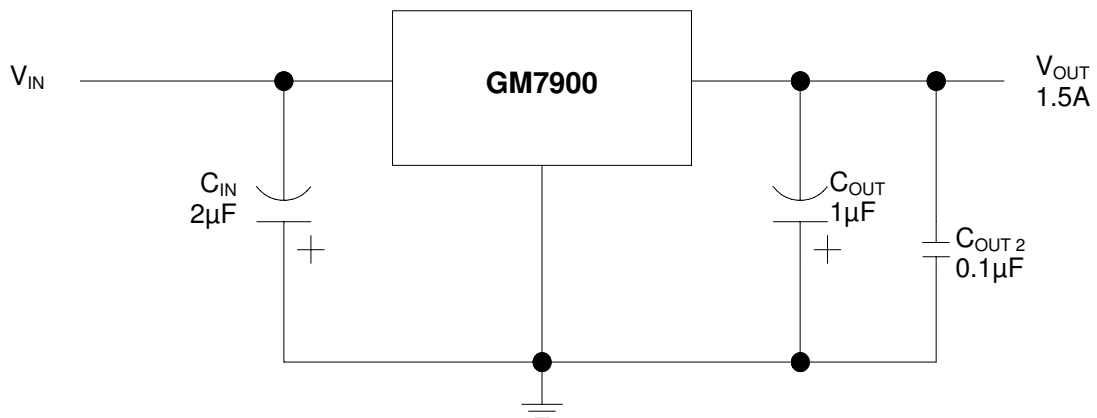
The internal limiting and thermal shutdown features of these regulators make them essentially immune to overload. In addition to use as fixed-voltage regulators, these devices can be used with external components to obtain adjustable output voltages and current and also as the power pass element in precision regulators.

The GM7900 series are available in TO-220, TO-252, TO-263 packages.

### Features

- Output current up to 1.5A
- Available Output Voltage Options from -5V to -24V
- 3-Terminal Regulators
- Internal Thermal Overload Protection
- Internal Short-Circuit Current Limiting
- Output Transistor Safe-Area Protection
- TO-220, TO-252 and TO-263 Packages
- High Power Dissipation Capability

### Typical Application Circuit



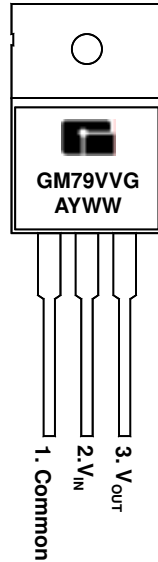
When using a negative regulator, bypass capacitors are a must on both input and output. Recommended values are 2µF on the input and 1µF on the output. It is considered good practice to include a 0.1µF capacitor on the output to improve the transient response. These capacitors may be mylar, ceramic, or tantalum, provided that they have good high frequency characteristics.

## Marking Information and Pin Configurations (Top View) – Green Products

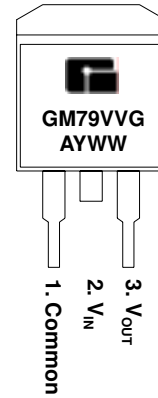
TO 252  
(D-PAK)



TO 220



TO 263  
(D<sup>2</sup>-PAK)



G: Green Product  
 VV: Output Voltage Codes (05: -5.0V, ...-12:12V)  
 A: Assembly/Test Site Code  
 Y: Year  
 WW: Week

### Ordering Information – Green Products

Ordering Number	V <sub>OUT</sub>	Package	Shipping
GM7900TA3TG	<b>00</b> = -5.0V -6.0V -8.0V -9.0V -10.0V -12.0V -15.0V -18.0V -24.0V	TO-263	50 Units/Tube
GM7900TA3RG		TO-263	800 Units / Reel
GM7900TB3TG		TO-220	50 Units/Tube
GM7900TC3TG		TO-252	80 Units/Tube
GM7900TC3RG		TO-252	2,500 Units / Reel

### Absolute Maximum Ratings

PARAMETER	SYMBOL	RATINGS	UNITS
Input Voltage	V <sub>I</sub>	-35	V
		-40	
Continuous total dissipation at 25°C free air temperature		2	W
Continuous total dissipation at (or below) 25°C case temperature		15	W
Operating Ambient Temperature	T <sub>A</sub>	0 to 150	°C
Storage Temperature	T <sub>stg</sub>	- 60 to 150	°C
Lead Temperature 1.6mm (1/6 inch) from case for 10 seconds		260	°C

### Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS
Input Voltage	V <sub>I</sub>	-7	-25	V
		-8	-25	
		-10.5	-25	
		-11.5	-25	
		-14.5	-30	
		-17.5	-30	
		-21	-33	
		-23	-34	
		-27	-38	
Output Current	I <sub>O</sub>		1.5	A
Operating virtual junction temperature	T <sub>J</sub>	0	125	°C