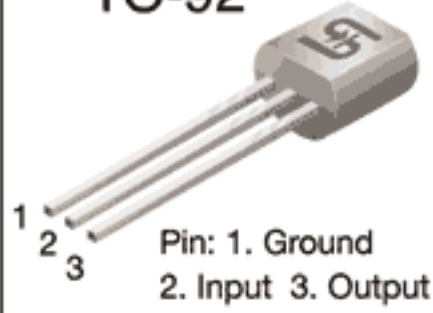


79L00

3-Terminal Negative Output Voltage Regulators

TO-92



Pin: 1. Ground
2. Input 3. Output

Features

- ◇ No External Components Required
- ◇ Internal Short-Circuit Current Limiting
- ◇ Internal Thermal Overload Protection
- ◇ Complementary Positive Regulators Offered (78L00 Series)
- ◇ Wide Range of Available, Fixed Output Voltages
- ◇ Available in $\pm 4\%$ Voltage Tolerance

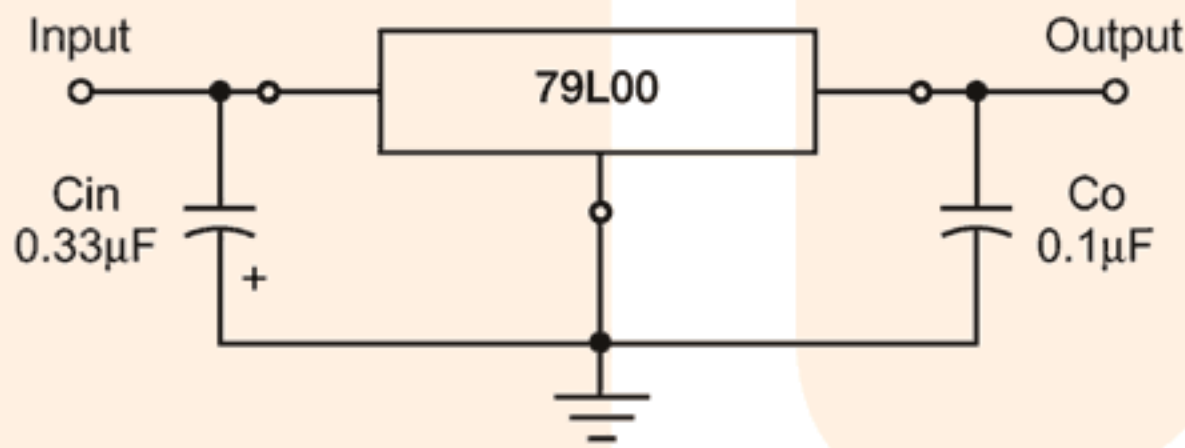
Absolute Maximum Ratings ($T_A = +25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Input Voltage	$V_{in} *1$	-35	V
Input Voltage	$V_{in} *2$	-40	V
Storage Temperature	T_{stg}	-65 to 150	$^\circ\text{C}$
Junction Temperature Range	T_J	0 to 150	$^\circ\text{C}$

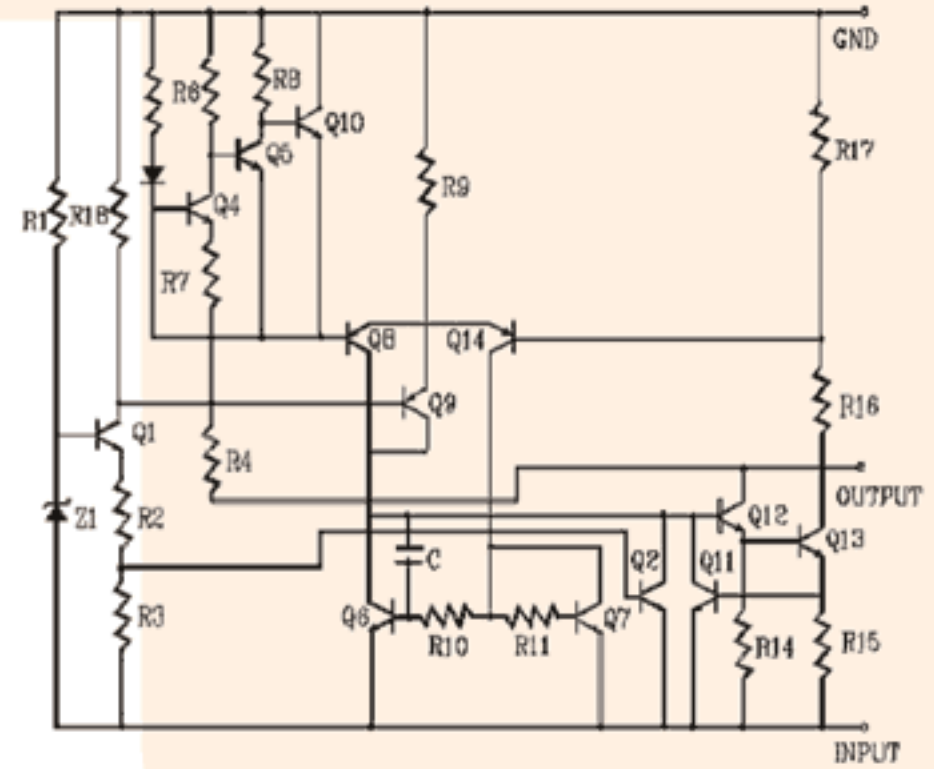
Note: *1: TS79L05
*2: TS79L12, TS79L15, TS79L18

Standard Application

SOP-8 is an internally modified SO-8 Package. Pins 2, 3, 6 and 7 are electrically common to the die attach flag. This internal lead frame modification decreases package thermal resistance and increases power dissipation capability when appropriately mounted on a printed circuit board. SOP-8 conforms to all external dimensions of the standard SO-8 Package.



Representative Circuit Schematic



79L15 Electrical Characteristics

($V_I = -23\text{V}$, $I_O = 40\text{mA}$, $C_I = 0.33\mu\text{F}$, $C_O = 0.1\mu\text{F}$, $0^\circ\text{C} < T_J < 125^\circ\text{C}$ unless otherwise noted.)

Characteristics	Symbol	Min	Typ	Max	Unit
Output Voltage ($T_J = +25^\circ\text{C}$)	V_O	-14.4	-15	-15.6	Vdc
Line Regulation ($T_J = +25^\circ\text{C}$) $-17.5\text{Vdc} \geq V_I \geq -30\text{Vdc}$ $-20\text{Vdc} \geq V_I \geq -30\text{Vdc}$	REGline	--	--	300	mV
Load Regulation $T_J = +25^\circ\text{C}$, $1.0\text{mA} \leq I_O \leq 100\text{mA}$ $1.0\text{mA} \leq I_O \leq 40\text{mA}$	REGload	--	--	150	mV
Output Voltage $-17.5\text{Vdc} \geq V_I \geq -30\text{Vdc}$, $1.0\text{mA} \leq I_O \leq 40\text{mA}$ $V_I = -23\text{Vdc}$, $1.0\text{mA} \leq I_O \leq 70\text{mA}$	V_O	-14.25	--	-15.75	Vdc
Input Bias Current ($T_J = +25^\circ\text{C}$) ($T_J = +125^\circ\text{C}$)	I_{IB}	--	--	6.5	mA
Input Bias Current Change $-20\text{Vdc} \geq V_I \geq -30\text{Vdc}$ $1.0\text{mA} \leq I_O \leq 40\text{mA}$	ΔI_{IB}	--	--	1.5	mA
Output Noise Voltage ($T_A = +25^\circ\text{C}$, $10\text{Hz} \leq f \leq 100\text{kHz}$)	V_n	--	90	--	μV
Ripple Rejection ($-18.5\text{Vdc} \geq V_I \geq -28.5\text{Vdc}$, $f = 120\text{Hz}$)	RR	34	39	--	dB
Dropout Voltage ($I_O = 40\text{mA}$, $T_J = +25^\circ\text{C}$)	$ V_I - V_O $	--	1.7	--	Vdc