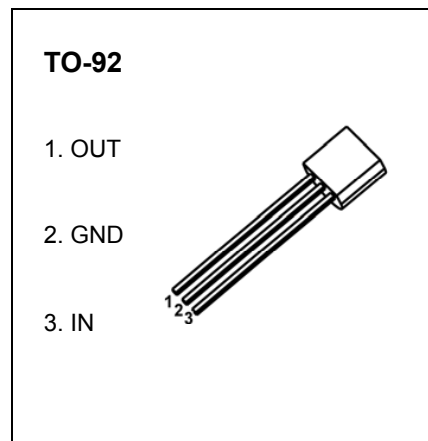




### Three-terminal positive voltage regulator

#### FEATURES

- Maximum Output Current  $I_O$ : 0.1 A
- Output Voltage  $V_O$ : 5 V
- Continuous Total Dissipation  $P_D$ : 0.625W ( $T_a=25^\circ\text{C}$ )



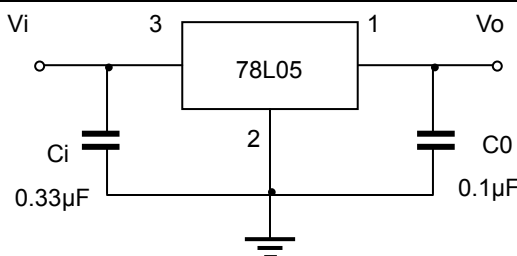
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=10V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	$V_o$	$25^\circ\text{C}$	4.8	5.0	5.2	V	
		0-125 $^\circ\text{C}$	$7V \leq V_i \leq 20V, I_o=1mA \sim 40mA$	4.75	5.0	5.25	V
			$I_o=1mA \sim 70mA$	4.75	5.0	5.25	V
Load Regulation	$\Delta V_o$	$I_o=1mA \sim 100mA$	$25^\circ\text{C}$	15	60	mV	
		$I_o=1mA \sim 40mA$	$25^\circ\text{C}$	8	30	mV	
Line regulation	$\Delta V_o$	$7V \leq V_i \leq 20V$		32	150	mV	
		$8V \leq V_i \leq 20V$	$25^\circ\text{C}$	26	100	mV	
Quiescent Current	$I_q$	$25^\circ\text{C}$		3.8	6	mA	
Quiescent Current Change	$\Delta I_q$	$8V \leq V_i \leq 20V$	0-125 $^\circ\text{C}$		1.5	mA	
	$\Delta I_q$	$1mA \leq V_i \leq 40mA$	0-125 $^\circ\text{C}$		0.1	mA	
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	$25^\circ\text{C}$	42		$\mu V$	
Ripple Rejection	RR	$8V \leq V_i \leq 20V, f=120Hz$	0-125 $^\circ\text{C}$	41	49	dB	
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V	

#### TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

# Typical Characteristics

