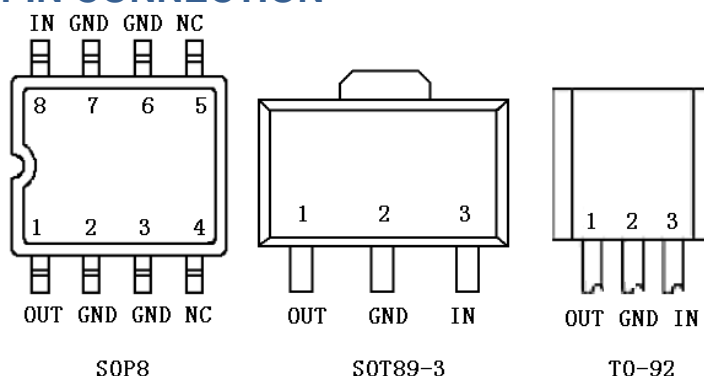


### FEATURES

- Maximum Output current: 0.1A
- Output Voltage: 5V
- Thermal Overload Protection
- 2% Output Voltage Accuracy

### PIN CONNECTION



### Absolute Maximum Ratings (Ta=25°C)

Characteristics	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Operating Junction Temperature Range	$T_j$	-40 ~ +125	°C
Power Dissipation	TO-92	625	m W
	SOT-89	350	
	SOP8	500*	
Operating Temperature Range	$T_{opr}$	-40 ~ +85	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +150	°C

### ELECTRICAL CHARACTERISTICS

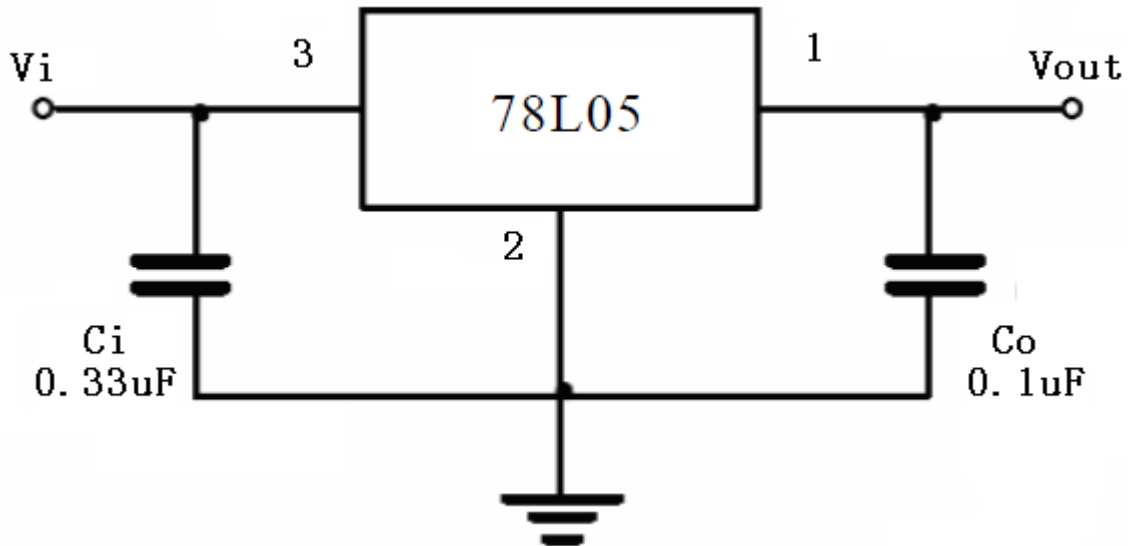
(unless otherwise noted,  $V_i=10V, I_o=40mA, -30 < T_j < 85^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$ ) (Note1)

Characteristics	Test conditions	Symbol	Min	Typ	Max	Unit
Output Voltage	$T_j=25^\circ C$	$V_o$	4.9	5	5.1	V
	$7V \leq V_i \leq 20V; I_o=1mA \sim 40mA$		4.8		5.2	V
	$7V \leq V_i \leq V_{max}; I_o=1mA \sim 70mA$		4.8		5.2	V (Note2)
Load Regulation	$T_j=25^\circ C; I_o=1mA \sim 100mA$	$\Delta V_o$		11	60	m V
	$T_j=25^\circ C; I_o=1mA \sim 40mA$			5	6	m V
Line Regulation	$T_j=25^\circ C; 7V \leq V_i \leq 20V$	$\Delta V_o$		8	150	m V
	$T_j=25^\circ C; 8V \leq V_i \leq 20V$			6	100	m V
Quiescent Current		$I_q$		2	5.5	m A
Quiescent Current Change	$8V \leq V_i \leq 20V$	$\Delta I_q$			1.5	m A
	$1mA \leq I_o \leq 40mA$				0.2	m A
Output Noise Voltage	$10Hz \leq f \leq 100kHz$	$V_N$		40		$\mu V$
Temperature Coefficient of $V_o$	$I_o=5mA$	$\Delta V_o / \Delta T$		-0.65		mV/° C
Ripple Rejection	$10V \leq V_i \leq 20V; f=120Hz; T_j=25^\circ C$	RR	41	48		d B
Dropout Voltage	$T_j=25^\circ C$	$V_d$		1.7		V

**Note 1:** The Maximum steady state usable output current and input voltage are very dependent on the heating sinking and/or lead temperature length of the package. The data above represent pulse test conditions with junction temperatures as indicated at the initiation of test.

**Note 2:** Power dissipation To-92<0.625W, SOT-89<0.35W, SOP8<0.5W

**APPLICATION CIRCUIT**



\*Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

**OUTLINE DRAWING**

