

Three-terminal positive voltage regulator

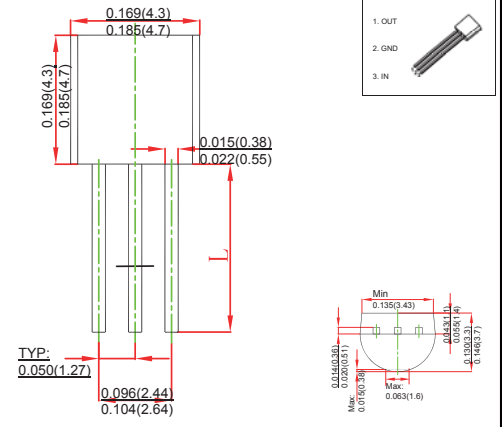
FEATURES

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

MECHANICAL DATA

- Case: TO-92 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

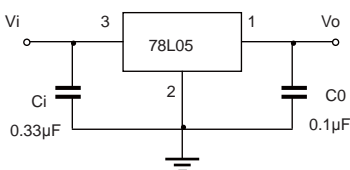
Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

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°C	4.8	5.0	5.2	V	
		$7V \leq V_i \leq 20V, I_o=1mA \sim 40mA$	4.75	5.0	5.25	V	
		$I_o=1mA \sim 70mA$	4.75	5.0	5.25	V	
Load Regulation	ΔV_o	$I_o=1mA \sim 100mA$		15	60	mV	
		$I_o=1mA \sim 40mA$	25°C		8	30	mV
Line regulation	ΔV_o	$7V \leq V_i \leq 20V$		32	150	mV	
		$8V \leq V_i \leq 20V$	25°C		26	100	mV
Quiescent Current	I_q	25°C		3.8	6	mA	
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 20V$	0-125°C			1.5	mA
		$1mA \leq V_i \leq 40mA$	0-125°C			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C	42		uV	
Ripple Rejection	RR	$8V \leq V_i \leq 20V, f=120Hz$	0-125°C	41	49	dB	
Dropout Voltage	V_d	25°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.

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

