

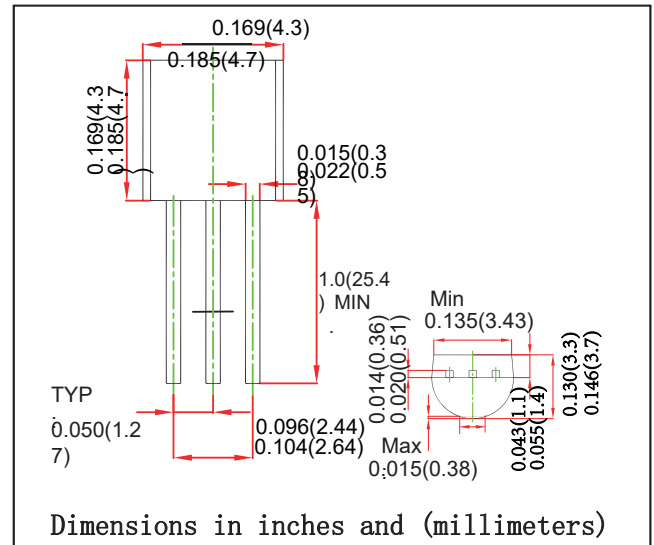
TO-92 Three-terminal positive voltage regulator

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



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

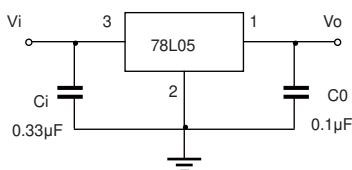
Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	$0\sim+150$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	$-55\sim+150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_I=10\text{V}$, $I_O=40\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_O	25°C	4.8	5.0	5.2	V
		$7\text{V}\leq V_I\leq 20\text{V}$, $I_O=1\text{mA}\sim 40\text{mA}$	4.75	5.0	5.25	V
		$I_O=1\text{mA}\sim 70\text{mA}$	4.75	5.0	5.25	V
Load Regulation	ΔV_O	$I_O=1\text{mA}\sim 100\text{mA}$, 25°C		15	60	mV
		$I_O=1\text{mA}\sim 40\text{mA}$, 25°C		8	30	mV
Line regulation	ΔV_O	$7\text{V}\leq V_I\leq 20\text{V}$		32	150	mV
		$8\text{V}\leq V_I\leq 20\text{V}$, 25°C		26	100	mV
Quiescent Current	I_q	25°C		3.8	6	mA
Quiescent Current Change	ΔI_q	$8\text{V}\leq V_I\leq 20\text{V}$, $0\sim 125^\circ\text{C}$			1.5	mA
	ΔI_q	$1\text{mA}\leq V_I\leq 40\text{mA}$, $0\sim 125^\circ\text{C}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz}\leq f\leq 100\text{KHz}$, 25°C		42		μV
Ripple Rejection	RR	$8\text{V}\leq V_I\leq 20\text{V}$, $f=120\text{Hz}$, $0\sim 125^\circ\text{C}$	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

