

Three-terminal positive voltage regulator

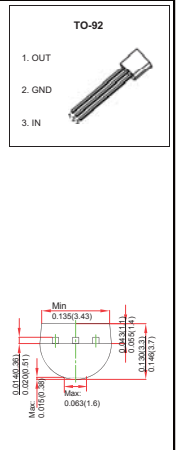
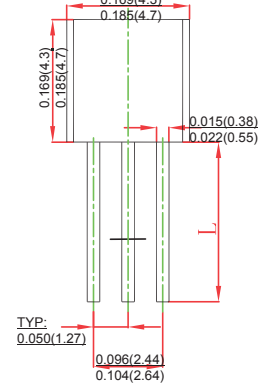
FEATURES

Maximum output current IOM: 0.1A
 Output voltage VO: 9V
 Continuous total dissipation
 PD: 0.625W (T_a = 25 °C)

MECHANICAL DATA

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

TO-92



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V _i	30	V
Thermal resistance from Junction to Ambient	R _{θJA}	160	°C/W
Operating Junction Temperature Range	T _{OPR}	-25~+125	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

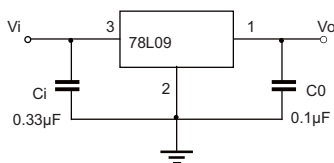
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

(V_i=16V, I_o=40mA, C_i=0.33μF, C_o=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V _o	25°C	8.64	9.0	9.36	V	
		⑥-125°C	12V ≤ V _i ≤ 24V, I _o = 1mA-40mA	8.55	9.0	9.45	V
			I _o = 1mA-70mA	8.55	9.0	9.45	V
Load Regulation	ΔV _o	I _o = 1mA-100mA, 25°C		19	90	mV	
		I _o = 1mA-40mA, 25°C		11	40	mV	
Line regulation	ΔV _o	12V ≤ V _i ≤ 24V, 25°C		45	175	mV	
		13V ≤ V _i ≤ 24V, 25°C		40	125	mV	
Quiescent Current	I _q	25°C		4.1	6.0	mA	
Quiescent Current Change	ΔI _q	13V ≤ V _i ≤ 24V, ⑥-125°C			1.5	mA	
	ΔI _q	1mA ≤ I _o ≤ 40mA, ⑥-125°C			0.1	mA	
Output Noise Voltage	V _N	10Hz ≤ f ≤ 100KHz, 25°C		58		7V/V _o	
Ripple Rejection	RR	15V ≤ V _i ≤ 25V, f = 120Hz, ⑥-125°C		45		dB	
Dropout Voltage	V _d	25°C		1.7		V	

* Pulse test.

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

