

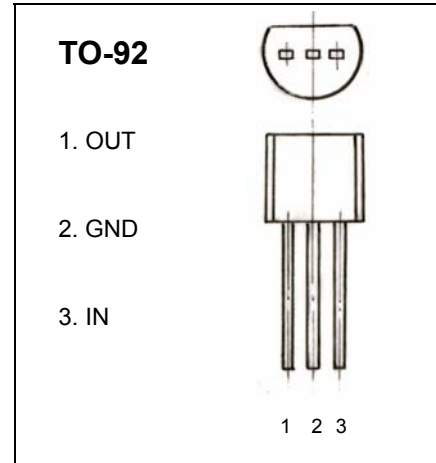


TO-92 Encapsulate Three-terminal Voltage Regulator

78L08 Three-terminal positive voltage regulator

FEATURES

Maximum Output current
 I_{OM} : 0.1 A
 Output voltage
 V_o : 8 V
 Continuous total dissipation
 P_D : 0.625W



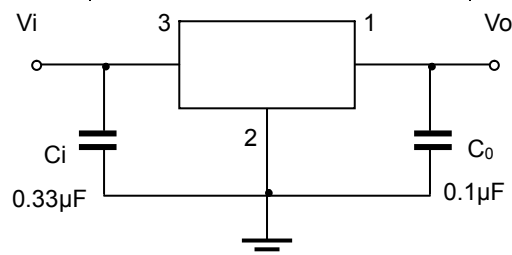
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0~+125	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_I=14V$, $I_o=40mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Output voltage	Vo		25℃	7.7	8.0	8.3	V
		10.5V≤Vi≤23V, Io=1mA~40mA	0-125℃	7.6	8.0	8.4	V
		Io=1mA~70mA		7.6	8.0	8.4	V
Load Regulation	ΔVo	Io=1mA~100mA	25℃		18	80	mV
		Io=1mA~40mA	25℃		10	40	mV
Line regulation	ΔVo	10.5V≤Vi≤23V	25℃		42	175	mV
		11V≤Vi≤23V	25℃		36	125	mV
Quiescent Current	Iq		25℃		4	6	mA
Quiescent Current Change	ΔIq	11V≤Vi≤23V	0-125℃			1.5	mA
	ΔIq	1mA≤Io≤40mA	0-125℃			0.1	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25℃		54		uV
Ripple Rejection	RR	13V≤Vi≤23V,f=120Hz	0-125℃	37	46		dB
Dropout Voltage	Vd		25℃		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.