

TO-92 Encapsulate Three-terminal Voltage Regulator

78L18 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

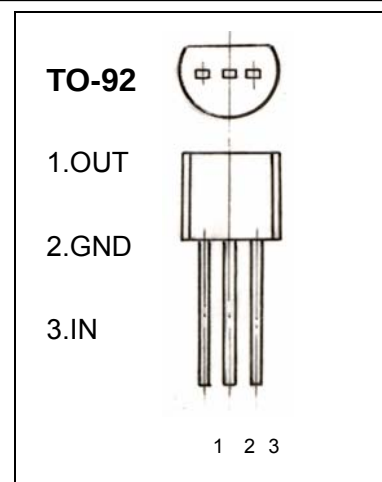
I_{OM} : 0.1 A

Output voltage

V_O : 18 V

Continuous total dissipation

P_D : 0.625 W



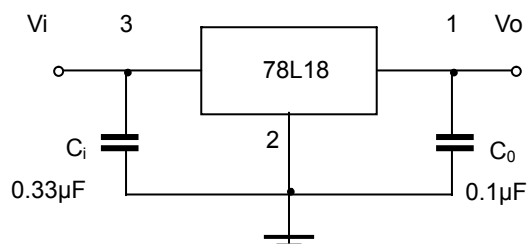
ABSOLUTE MAXIMUM RATINGS(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	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 ($V_i=26V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	25°C	17.3	18	18.7	V
		20.5V ≤ V_i ≤ 33V, $I_o=1mA-40mA$	17.1	18	18.9	V
		$V_i=26V, I_o=1mA-70mA$	17.1	18	18.9	V
Load Regulation	ΔV_o	$I_o=1mA-100mA, V_i=26V$	25°C	27	180	mV
		$I_o=1mA-40mA, V_i=26V$	25°C	19	90	mV
Line regulation	ΔV_o	20.5V ≤ V_i ≤ 33V, $I_o=40mA$	25°C	70	360	mV
		22V ≤ V_i ≤ 33V, $I_o=40mA$	25°C	64	300	mV
Quiescent Current	I_q	25°C	4.7	6.5		mA
Quiescent Current Change	ΔI_q	22V ≤ V_i ≤ 33V, $I_o=40mA$	0-125°C	1.5		mA
	ΔI_q	1mA ≤ I_o ≤ 40mA, $V_i=26V$	0-125°C	0.1		mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz	25°C	89		μV
Ripple Rejection	RR	21.5V ≤ V_i ≤ 31.5V, $f=120Hz$	0-125°C	32	36	dB
Dropout Voltage	V_d	$T_j=25°C$	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.