

Encapsulate Three Terminal Voltage Regulators

Three-terminal positive voltage regulator

FEATURES

Maximum output current

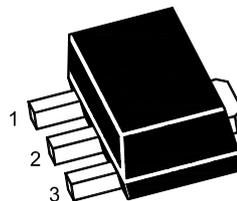
$$I_{OM}: 0.1 \text{ A}$$

Output voltage

$$V_O: 18 \text{ V}$$

Continuous total dissipation

$$P_D: 0.5 \text{ W}$$



1.OUT 2.GND 3.IN
SOT-89 Plastic Package

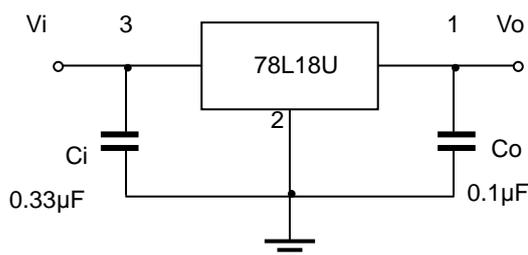
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=26\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

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