



SOT-89 Encapsulate Three-terminal Voltage Regulator

CJ78L18 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

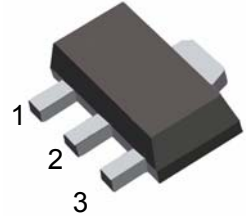
V_o : 18 V

SOT-89

1. OUT

2. GND

3. IN



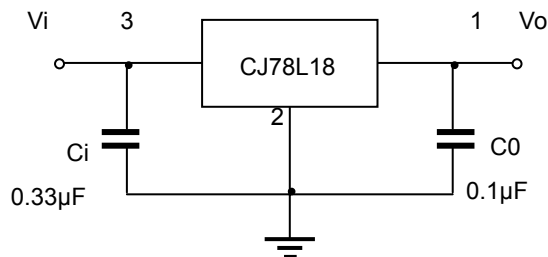
ABSOLUTE MAXIMUM RATINGS(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
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 ($V_i=26V, I_o=40mA, 0^\circ C < T_j < 125^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	17.3	18	18.7	V
		$21V \leq V_i \leq 33V, I_o=1mA-40mA$	17.1	18	18.9	V
		$21V \leq V_i \leq 33V, I_o=1mA-70mA$	17.1	18	18.9	V (note)
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=1mA-100mA$		27	180	mV
		$T_j=25^\circ C, I_o=1mA-40mA$		19	90	mV
Line regulation	ΔV_o	$20.5V \leq V_i \leq 33V, T_j=25^\circ C$		70	360	mV
		$22V \leq V_i \leq 33V, T_j=25^\circ C$		60	300	mV
Quiescent Current	I_q	$25^\circ C$		4.7	6.5	mA
Quiescent Current Change	ΔI_q	$21V \leq V_i \leq 33V$			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		89		μV
Ripple Rejection	RR	$23V \leq V_i \leq 33V, f=120Hz, T_j=25^\circ C$	32	36		dB
Dropout Voltage	V_d	$T_j=25^\circ C$		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.