

WEJ78L18 Three-terminal positive voltage regulator

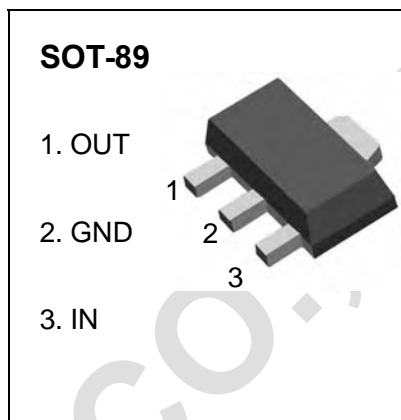
FEATURES

Maximum Output current

I_{OM} : 100 mA

Output voltage

V_O : 18 V



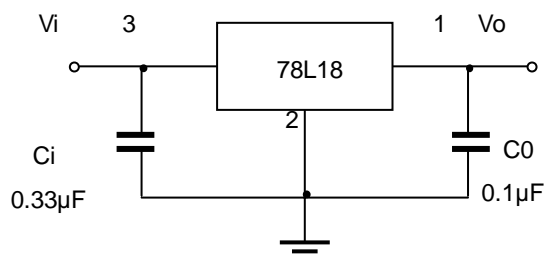
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	-20~+120	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=26V, I_o=40mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	17.3	18	18.7	V
		$17.5V \leq V_i \leq 30V, I_o=1mA \sim 40mA$	17.1	18	18.9	V
		$V_i=26V, I_o=1mA \sim 70mA$	17.1	18	18.9	V (note)
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=1mA \sim 100mA, V_i=26V$		27	180	mV
		$T_j=25^\circ C, I_o=1mA \sim 40mA, V_i=26V$		19	90	mV
Line regulation	ΔV_o	$20.5V \leq V_i \leq 33V, T_j=25^\circ C, I_o=40mA$		70	360	mV
		$22V \leq V_i \leq 33V, T_j=25^\circ C, I_o=40mA$		64	300	mV
Quiescent Current	I_q			4.7	6.5	mA
Quiescent Current Change	ΔI_q	$22V \leq V_i \leq 33V, I_o=40mA$			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA, V_i=26V$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		89		μV
Ripple Rejection	RR	$21.5V \leq V_i \leq 31.5V, f=120Hz, 25^\circ C \leq T_j \leq 125^\circ C$	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.