

WEJ78L06 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

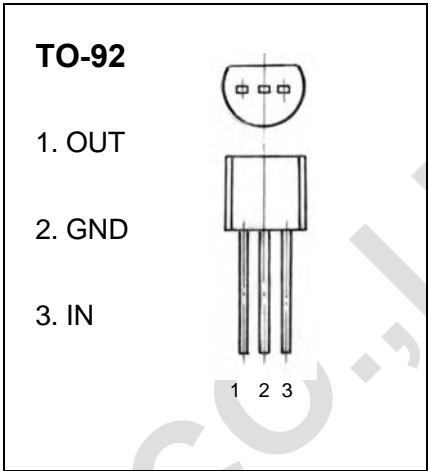
$$I_{OM}: 0.1 \text{ A}$$

Output voltage

$$V_o: 6 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$



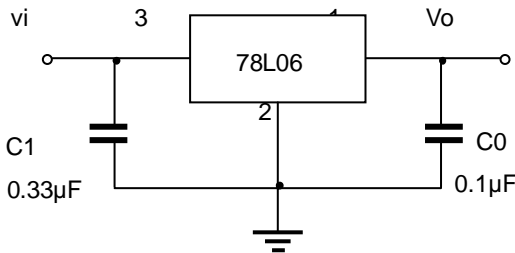
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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 ($V_I=11V, I_o=40mA, 0^\circ\text{C}<T_J<125^\circ\text{C}, C_1=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_J=25^\circ\text{C}$	5.75	6.0	6.25	V
		$8V \leq V_I \leq 20V, I_o=1mA \sim 40mA$	5.7	6.0	6.3	V
		$8V \leq V_I \leq 20V, I_o=1mA \sim 70mA$	5.7	6.0	6.3	V (note)
Load Regulation	ΔV_o	$T_J=25^\circ\text{C}, I_o=1mA \sim 100mA$		16	80	mV
		$T_J=25^\circ\text{C}, I_o=1mA \sim 40mA$		9	40	mV
Line regulation	ΔV_o	$8.5V \leq V_I \leq 20V, T_J=25^\circ\text{C}$		35	175	mV
		$9V \leq V_I \leq 20V, T_J=25^\circ\text{C}$		29	125	mV
Quiescent Current	I_q	$T_J=25^\circ\text{C}$		3.9	6.0	mA
Quiescent Current Change	ΔI_q	$9V \leq V_I \leq 20V$			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		46		uV
Ripple Rejection	RR	$9V \leq V_I \leq 19V, f=120\text{Hz}, T_J=25^\circ\text{C}$	40	48		dB
Dropout Voltage	V_d	$T_J=25^\circ\text{C}$		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.