

### WEJ78L06 Three-terminal positive voltage regulator

#### FEATURES

Maximum Output current

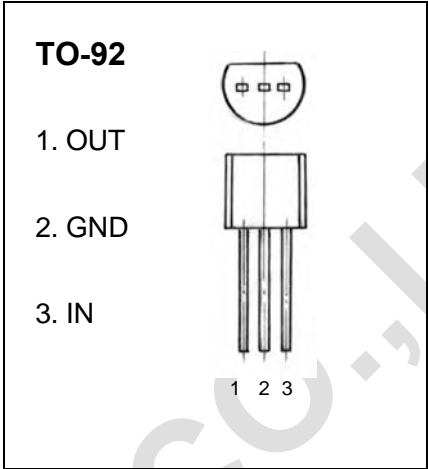
$$I_{OM}: 0.1 \text{ A}$$

Output voltage

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

Operating and storage junction temperature range

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



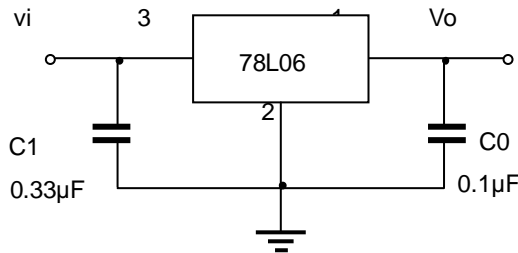
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $V_I=11\text{V}, I_o=40\text{mA}, 0^\circ\text{C}<T_J<125^\circ\text{C}, C_1=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , 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
		$8\text{V}\leq V_I\leq 20\text{V}, I_o=1\text{mA}\sim 40\text{mA}$	5.7	6.0	6.3	V
		$8\text{V}\leq V_I\leq 20\text{V}, I_o=1\text{mA}\sim 70\text{mA}$	5.7	6.0	6.3	V (note)
Load Regulation	$\Delta V_o$	$T_J=25^\circ\text{C}, I_o=1\text{mA}\sim 100\text{mA}$		16	80	mV
		$T_J=25^\circ\text{C}, I_o=1\text{mA}\sim 40\text{mA}$		9	40	mV
Line regulation	$\Delta V_o$	$8.5\text{V}\leq V_I\leq 20\text{V}, T_J=25^\circ\text{C}$		35	175	mV
		$9\text{V}\leq V_I\leq 20\text{V}, T_J=25^\circ\text{C}$		29	125	mV
Quiescent Current	$I_q$	$T_J=25^\circ\text{C}$		3.9	6.0	mA
Quiescent Current Change	$\Delta I_q$	$9\text{V}\leq V_I\leq 20\text{V}$			1.5	mA
	$\Delta I_q$	$1\text{mA}\leq I_o\leq 40\text{mA}$			0.1	mA
Output Noise Voltage	$V_N$	$10\text{Hz}\leq f\leq 100\text{KHz}$		46		$\mu\text{V}$
Ripple Rejection	RR	$9\text{V}\leq V_I\leq 19\text{V}, f=120\text{Hz}, T_J=25^\circ\text{C}$	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.