



TO-92 Encapsulate Three-terminal Voltage Regulators

CJ78L06 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

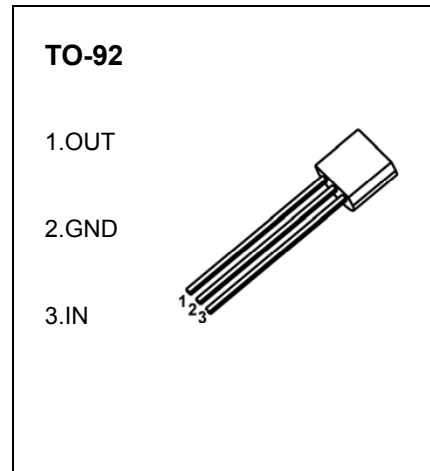
$I_{OM}: 0.1\text{ A}$

Output voltage

$V_o: 6\text{ V}$

Continuous total dissipation

$P_D: 0.625\text{ W}$



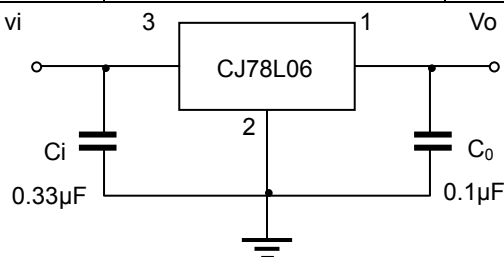
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0 to +175	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_I=11\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	5.75	6.0	6.25	V
		$8\text{V} \leq V_i \leq 20\text{V}, I_o=1\text{mA}-40\text{mA}$	5.7	6.0	6.3	V
		$0-125^\circ\text{C}$ $I_o=1\text{mA}-70\text{mA}$	5.7	6.0	6.3	V
Load Regulation	ΔV_o	$I_o=1\text{mA}-100\text{mA}$ 25°C		16	80	mV
		$I_o=1\text{mA}-40\text{mA}$ 25°C		9	40	mV
Line regulation	ΔV_o	$8\text{V} \leq V_i \leq 20\text{V}$ 25°C		35	175	mV
		$9\text{V} \leq V_i \leq 20\text{V}$ 25°C		29	125	mV
Quiescent Current	I_q	25°C		3.9	6.0	mA
Quiescent Current Change	ΔI_q	$9\text{V} \leq V_i \leq 20\text{V}$ $0-125^\circ\text{C}$			1.5	mA
	ΔI_q	$1\text{mA} \leq I_o \leq 40\text{mA}$ $0-125^\circ\text{C}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}$ 25°C		46		μV
Ripple Rejection	RR	$9\text{V} \leq V_i \leq 19\text{V}, f=120\text{Hz}$ $0-125^\circ\text{C}$	40	48		dB
Dropout Voltage	V_d	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.

Typical Characteristics

CJ78L06

