



TO-92 Encapsulate Three-terminal Voltage Regulator

78L06 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

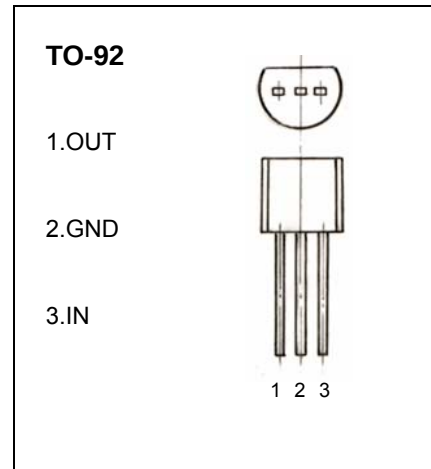
I_{OM} : 0.1 A

Output voltage

V_O : 6 V

Continuous total dissipation

P_D : 0.625W



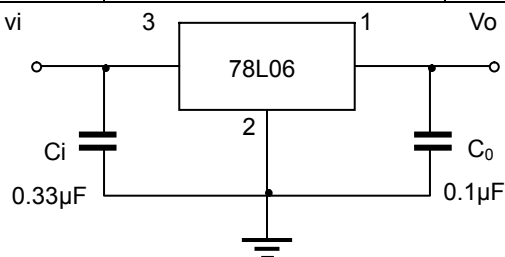
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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 AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_I=11V, I_O=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	25°C	5.75	6.0	6.25	V
		8V≤ V_I ≤20V, $I_O=1mA-40mA$	5.7	6.0	6.3	V
		$I_O=1mA-70mA$	5.7	6.0	6.3	V
Load Regulation	ΔV_O	$I_O=1mA-100mA$		16	80	mV
		$I_O=1mA-40mA$		9	40	mV
Line regulation	ΔV_O	8V≤ V_I ≤20V		35	175	mV
		9V≤ V_I ≤20V		29	125	mV
Quiescent Current	I_q	25°C		3.9	6.0	mA
Quiescent Current Change	ΔI_q	9V≤ V_I ≤20V			1.5	mA
	ΔI_q	1mA≤ I_O ≤40mA			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz		46		uV
Ripple Rejection	RR	9V≤ V_I ≤19V, f=120Hz	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.