



SOT-89 Encapsulate Three Terminal Voltage Regulator

78L06 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM}: 0.1A

Output voltage

V_O: 6 V

Continuous total dissipation

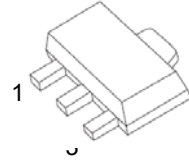
P_D: 0.5W

SOT-89

1.OUT

2.GND

3.IN



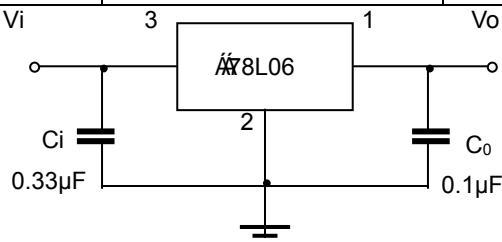
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V _i	30	V
Operating Junction Temperature Range	T _{OPR}	0~+150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (V_i=11V, I_o=40mA, C_i=0.33μF, C_o=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V _o	25°C	5.75	6.0	6.25	V	
		0-125°C	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	25°C	16	80	mV	
		I _o =1mA-40mA	25°C	9	40	mV	
Line regulation	ΔV _o	8V≤V _i ≤20V	25°C	35	175	mV	
		9V≤V _i ≤20V	25°C	29	125	mV	
Quiescent Current	I _q	25°C		3.9	6.0	mA	
Quiescent Current Change	ΔI _q	9V≤V _i ≤20V	0-125°C		1.5	mA	
	ΔI _q	1mA≤I _o ≤40mA	0-125°C		0.1	mA	
Output Noise Voltage	V _N	10Hz≤f≤100KHz	25°C	46		uV	
Ripple Rejection	RR	9V≤V _i ≤19V, f=120Hz	0-125°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.