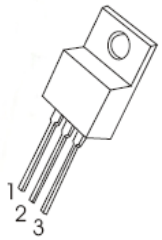
TO-220-3L Plastic-Encapsulate Voltage Regulators

CJ7806H Three-terminal positive voltage regulator

TO-220-3L

1. IN
2. GND
3. OUT



FEATURES

- **Maximum Output current I_{OM}: 1.5 A**
- **Output voltage V_o: 6 V**
- **Continuous total dissipation is internally limited**

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83.3	℃/W
Thermal Resistance from Junction to Case	$R_{\theta JC}$	8.3	℃/W
Operating Junction Temperature Range	T_{OPR}	0~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (Vi=11V,Io=500mA,Ci=0.33μF, Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25℃	5.75	6	6.25	V
		8V≤V_i≤21V, Io=5mA-1A, P≤15W	0-125℃	5.7	6	6.3	V
Load regulation	△Vo	Io=5mA-1.5A	25℃		1.3	120	mV
		Io=250mA-750mA	25℃		0.5	60	mV
Line regulation	△Vo	8V≤V_i≤25V	25℃		0.5	120	mV
		9V≤V_i≤13V	25℃		0.8	60	mV
Quiescent current	Iq		25℃		3.8	8	mA
Quiescent current change	△Iq	8V≤V_i≤25V	0-125℃		0.8	1.3	mA
		5mA≤I_O≤1A	0-125℃		0.08	0.5	mA
Output voltage drift	△Vo/△T	I_O=5mA	0-125℃		-0.8		mV/℃
Output noise voltage	V_N	10Hz≤f≤100kHz	25℃		45		μV
Ripple rejection	RR	9V≤V_i≤19V,f=120Hz	0-125℃	59	75		dB
Dropout voltage	Vd	Io=1A	25℃		2		V
Output resistance	R_O	f=1kHz	25℃		10		mΩ
Short circuit current	Isc		25℃		550		mA
Peak current	Ipk		25℃		2.2		A

TYPICAL APPLICATION