

深圳市晶泰源电子有限公司

CJ7806 Three-terminal positive voltage regulator

FEATURES

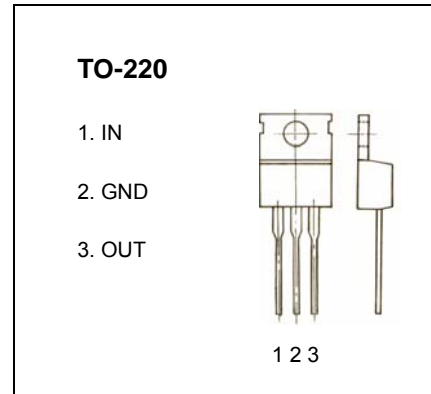
Maximum Output current I_{OM} : 1.5 A

Output voltage V_o : 6 V

Continuous total dissipation

P_D : 1.5 W ($T_a = 25^\circ\text{C}$)

15 W ($T_c = 25^\circ\text{C}$)



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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal resistance junction-air	$R_{\theta JA}$	65	$^\circ\text{C}/\text{W}$
Thermal resistance junction-cases	$R_{\theta JC}$	5	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	0-125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=11\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	25°C	5.75	6	6.25	V
		$8\text{V} \leq V_i \leq 21\text{V}$, $I_o=5\text{mA}-1\text{A}$, $P \leq 15\text{W}$	0-125 $^\circ\text{C}$	5.7	6	6.3
Load Regulation	ΔV_o	$I_o=5\text{mA}-1.5\text{A}$	25°C	14	120	mV
		$I_o=250\text{mA}-750\text{mA}$	25°C	4	60	mV
Line regulation	ΔV_o	$8\text{V} \leq V_i \leq 25\text{V}$	25°C	5	120	mV
		$9\text{V} \leq V_i \leq 13\text{V}$	25°C	1.5	60	mV
Quiescent Current	I_q	25°C		4.3	8	mA
Quiescent Current Change	ΔI_q	$8\text{V} \leq V_i \leq 25\text{V}$	0-125 $^\circ\text{C}$		1.3	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$	0-125 $^\circ\text{C}$	-0.8		mV/ $^\circ\text{C}$
Output Noise Voltage	V_N	10Hz $\leq f \leq$ 100KHz	25°C	45		μV
Ripple Rejection	RR	$9\text{V} \leq V_i \leq 19\text{V}$, $f=120\text{Hz}$	0-125 $^\circ\text{C}$	59	75	dB
Dropout Voltage	V_d	$I_o=1\text{A}$	25°C	2		V
Output resistance	R_o	$f=1\text{KHz}$	25°C	10		m Ω
Short Circuit Current	I_{sc}	25°C		550		mA
Peak Current	I_{pk}	25°C		2.2		A

TYPICAL APPLICATION

