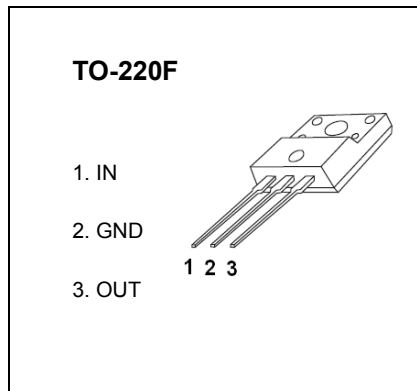


TO-220F Plastic-Encapsulate Voltage Regulators

CJ7806FH Three-terminal positive voltage regulator

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	$^{\circ}\text{C}/\text{W}$
Thermal Resistance from Junction to Case	$R_{\theta JC}$	8.3	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	0~+150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+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	V
Load regulation	ΔV_o	$I_o=5\text{mA}-1.5\text{A}$ 25°C		1.3	120	mV
		$I_o=250\text{mA}-750\text{mA}$ 25°C		0.5	60	mV
Line regulation	ΔV_o	$8\text{V} \leq V_i \leq 25\text{V}$ 25°C		0.5	120	mV
		$9\text{V} \leq V_i \leq 13\text{V}$ 25°C		0.8	60	mV
Quiescent current	I_q	25°C		3.8	8	mA
Quiescent current change	ΔI_q	$8\text{V} \leq V_i \leq 25\text{V}$ $0-125^{\circ}\text{C}$		0.8	1.3	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$ $0-125^{\circ}\text{C}$		0.08	0.5	mA
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$ $0-125^{\circ}\text{C}$		-0.8		$\text{mV}/^{\circ}\text{C}$
Output noise voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}$ 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		$\text{m}\Omega$
Short circuit current	I_{sc}	25°C		550		mA
Peak current	I_{pk}	25°C		2.2		A

TYPICAL APPLICATION

