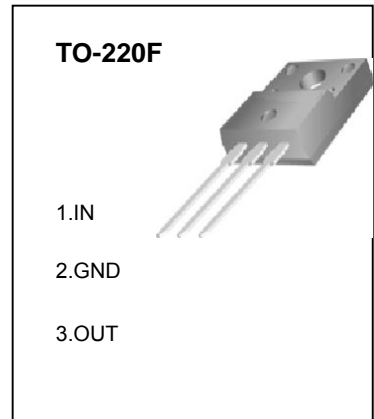




TO-220F Plastic-Encapsulate voltage regulator

CJ7808F Three-terminal positive voltage regulator



FEATURES

Maximum Output current

$I_{OM}: 1.5\text{ A}$

Output voltage

$V_O: 8\text{ V}$

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0 to 150	°C
Storage Temperature Range	T_{STG}	-65 to 150	°C

ELECTRICAL CHARACTERISTICS ($V_i=14\text{V}, I_o=500\text{mA}, 0 < T_j < 125^\circ\text{C}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F},$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ\text{C}$	7.7	8	8.3	V
		$10.5\text{V} \leq V_i \leq 23\text{V}, I_o=5\text{mA}-1\text{A}, P \leq 15\text{W}$	7.6	8	8.4	V
Load Regulation	ΔV_o	$T_j=25^\circ\text{C}, I_o=5\text{mA}-1.5\text{A}$		12	160	mV
		$T_j=25^\circ\text{C}, I_o=250\text{mA}-750\text{mA}$		4	80	mV
Line regulation	ΔV_o	$10.5\text{V} \leq V_i \leq 25\text{V}, T_j=25^\circ\text{C}$		6	160	mV
		$11\text{V} \leq V_i \leq 17\text{V}, T_j=25^\circ\text{C}$		2	80	mV
Quiescent Current	I_q	$T_j=25^\circ\text{C}$		4.3	8	mA
Quiescent Current Change	ΔI_q	$10.5\text{V} \leq V_i \leq 25\text{V}$			1	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		52		uV
Ripple Rejection	RR	$11.5\text{V} \leq V_i \leq 21.5\text{V}, f=120\text{Hz}, T_j=0-125^\circ\text{C}$	55	72		dB
Dropout Voltage	V_d	$T_j=25^\circ\text{C}, I_o=1\text{A}$		2		V
Short Circuit Current	I_{sc}	$T_a=25^\circ\text{C}$		450		mA
Peak Current	I_{pk}	$T_j=25^\circ\text{C}$		2.2		A

TYPICAL APPLICATION

