



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220F Plastic-Encapsulate voltage regulator**CJ7809F** Three-terminal positive voltage regulator**FEATURES**

Maximum Output current

 I_{OM} : 1.5 A

Output voltage

 V_o : 9 V**TO-220F**

1.IN
2.GND
3.OUT

**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-+150	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=16V, I_o=500mA, 0^\circ C < T_J < 125^\circ C, C_i=0.33 \mu F, C_o=0.1 \mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_J=25^\circ C$	8.65	9	9.35	V
		$11.5V \leq V_i \leq 24V, I_o=5mA-1A, P \leq 15W$	8.55	9	9.45	V
Load Regulation	ΔV_o	$T_J=25^\circ C, I_o=5mA-1.5A$		12	180	mV
		$T_J=25^\circ C, I_o=250mA-750mA$		4	90	mV
Line regulation	ΔV_o	$11.5V \leq V_i \leq 27V, T_J=25^\circ C$		7	180	mV
		$13V \leq V_i \leq 19V, T_J=25^\circ C$		2	90	mV
Quiescent Current	I_q	$T_J=25^\circ C$		4.3	8	mA
Quiescent Current Change	ΔI_q	$11.5V \leq V_i \leq 27V$			1	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		60		μV
Ripple Rejection	RR	$12V \leq V_i \leq 22V, f=120Hz, T_J=25^\circ C$	55	70		dB
Dropout Voltage	V_d	$T_J=25^\circ C, I_o=1A$		2		V
Short Circuit Current	I_{sc}	$T_a=25^\circ C$		400		mA
Peak Current	I_{pk}	$T_J=25^\circ C$		2.2		A

TYPICAL APPLICATION