



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

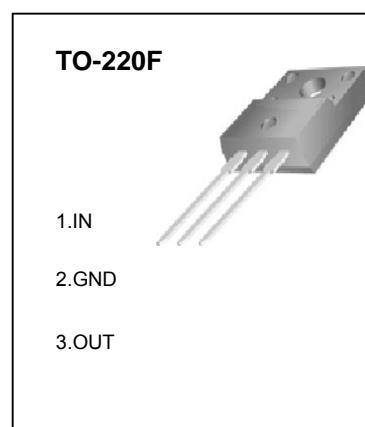
## TO-220F Plastic-Encapsulate voltage regulator

**CJ7809F** Three-terminal positive voltage regulator**FEATURES**

Maximum Output current

 $I_{OM}$ : 1.5 A

Output voltage

 $V_o$  : 9 V**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** ( $V_i=16V$ ,  $I_o=500mA$ ,  $0°C < T_J < 125°C$ ,  $C_i=0.33 \mu F$ ,  $C_o=0.1 \mu F$ , unless otherwise specified )

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

**TYPICAL APPLICATION**