



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## TO-220F Plastic-Encapsulate Transistors

**CJ7805F** Three-terminal positive voltage regulator

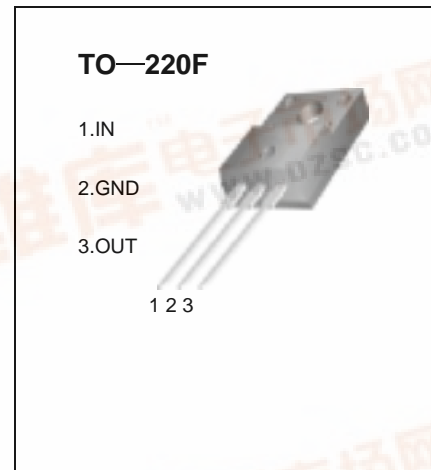
### FEATURES

Maximum Output current

$I_{OM}$ : 1.5 A

Output voltage

$V_o$ : 5V



### 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—+125	°C
Storage Temperature Range	$T_{STG}$	-55—+150	°C

### ELECTRICAL CHARACTERISTICS ( $V_i=10V, I_o=500mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33 \mu F, C_o=0.1 \mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25^\circ C$	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-1A, P_o < 15W$	4.75	5.00	5.25	V
Load Regulation	$\Delta V_o$	$T_j=25^\circ C, I_o=5mA-1.5A$		9	100	mV
		$T_j=25^\circ C, I_o=250mA-750mA$		4	50	mV
Line regulation	$\Delta V_o$	$7V \leq V_i \leq 25V, T_j=25^\circ C$		4	100	mV
		$8V \leq V_i \leq 12V, T_j=25^\circ C$		1.6	50	mV
Quiescent Current	$I_q$	$T_j=25^\circ C$		5	8	mA
Quiescent Current Change	$\Delta I_q$	$7V \leq V_i \leq 25V$		0.3	1.3	mA
	$\Delta I_q$	$5mA \leq I_o \leq 1A$		0.03	0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		42		uV
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz, T_j=25^\circ C$	62	73		dB
Dropout Voltage	$V_d$	$T_j=25^\circ C, I_o=1A$		2		V
Short Circuit Current	$I_{sc}$	$V_i=35V, T_a=25^\circ C$		230		mA
Peak Current	$I_{pk}$	$T_j=25^\circ C$		2.2		A

### TYPICAL APPLICATION

