



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## TO-220F Plastic-Encapsulate Voltage Regulator

### CJ7915F Three-terminal negative voltage regulator

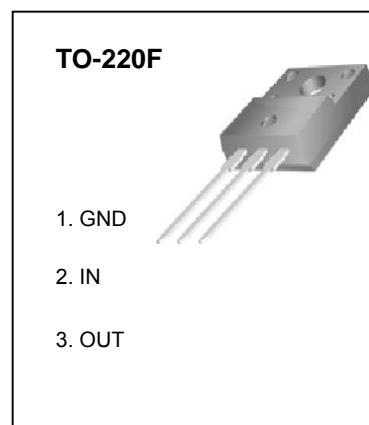
#### FEATURES

Maximum Output Current

$I_{OM}$ : 1.5 A

Output voltage

$V_o$ : -15 V



#### ABSOLUTE MAXIMUM RATINGS (operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
<b>Input Voltage</b>	$V_i$	-35	V
<b>Operating Junction Temperature Range</b>	$T_{OPR}$	0-+125	°C
<b>Storage Temperature Range</b>	$T_{STG}$	-55-+150	°C

#### ELECTRICAL CHARACTERISTICS ( $V_i$ =-23V, $I_o$ = 500mA, $0^{\circ}\text{C} < T_J < 125^{\circ}\text{C}$ , $C_i=2 \mu\text{F}$ , $C_o=1 \mu\text{F}$ , unless otherwise specified )

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
<b>Output voltage</b>	$V_o$	$T_J=25^{\circ}\text{C}$	-14.4	-15	-15.6	V
		$-17.5\text{V} \leqslant V_i \leqslant -30\text{V}$ , $I_o=5\text{mA}-1\text{A}$ $P \leqslant 15\text{W}$	-14.25	-15	-15.75	V
<b>Load Regulation</b>	$\Delta V_o$	$T_J = 25^{\circ}\text{C}$ , $I_o=5\text{mA}-1.5\text{A}$		15	200	mV
		$T_J = 25^{\circ}\text{C}$ , $I_o=250\text{mA}-750\text{mA}$		5	75	mV
<b>Line regulation</b>	$\Delta V_o$	$-17.5\text{V} \leqslant V_i \leqslant -30\text{V}$ , $T_J = 25^{\circ}\text{C}$		5	100	mV
		$-20\text{V} \leqslant V_i \leqslant -26\text{V}$ , $T_J = 25^{\circ}\text{C}$		3	50	mV
<b>Quiescent Current</b>	$I_q$	$T_J = 25^{\circ}\text{C}$		2	3	mA
<b>Quiescent Current Change</b>	$\Delta I_q$	$-17.5\text{V} \leqslant V_i \leqslant -30\text{V}$			0.5	mA
	$\Delta I_q$	$5\text{mA} \leqslant I_o \leqslant 1\text{A}$			0.5	mA
<b>Output Noise Voltage</b>	$V_N$	$10\text{Hz} \leqslant f \leqslant 100\text{KHz}$		375		$\mu\text{V}$
<b>Ripple Rejection</b>	$RR$	$-18.5\text{V} \leqslant V_i \leqslant -28.5\text{V}$ , $f=120\text{Hz}$ , $T_J = 25^{\circ}\text{C}$	54	60		dB
<b>Dropout Voltage</b>	$V_d$	$T_J = 25^{\circ}\text{C}$ , $I_o=1\text{A}$			1.1	V
<b>Peak Current</b>	$I_{pk}$	$T_J = 25^{\circ}\text{C}$			2.1	A

#### TYPICAL APPLICATION

