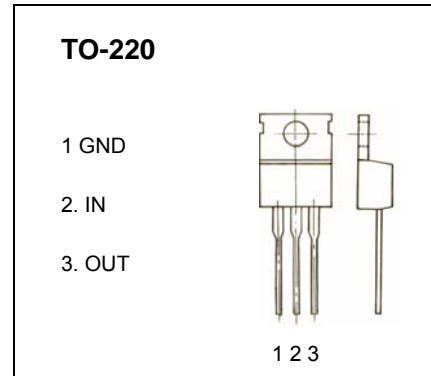


# 深圳市晶泰源电子有限公司

## CJ7908 Three-terminal negative voltage regulator

### FEATURES

**Maximum Output current  $I_{OM}$ : 1.5 A**  
**Output voltage  $V_o$ : - 8 V**  
**Continuous total dissipation**  
 $P_D$ : 1.5 W ( $T_a = 25^\circ\text{C}$ )  
 15 W ( $T_C = 25^\circ\text{C}$ )



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

Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-35	V
Thermal resistance junction-air	$R_{\theta JA}$	65	$^\circ\text{C}/\text{W}$
Thermal resistance junction-cases	$R_{\theta JC}$	5	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_{OPR}$	0-125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65-150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i = -14\text{V}, I_o = 500\text{mA}, C_i = 2.2\mu\text{F}, C_o = 1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$25^\circ\text{C}$	-7.7	-8	-8.3	V
		$-10.5\text{V} \leq V_i \leq -23\text{V}, I_o = 5\text{mA} - 1\text{A}, P \leq 15\text{W}$	0-125 $^\circ\text{C}$	-7.6	-8	-8.4
Load Regulation	$\Delta V_o$	$I_o = 5\text{mA} - 1.5\text{A}$	$25^\circ\text{C}$	15	160	mV
		$I_o = 250\text{mA} - 750\text{mA}$	$25^\circ\text{C}$	5	80	mV
Line regulation	$\Delta V_o$	$-10.5\text{V} \leq V_i \leq -25\text{V}$	$25^\circ\text{C}$	12.5	160	mV
		$-11\text{V} \leq V_i \leq -17\text{V}$	$25^\circ\text{C}$	4	80	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$		1.5	2	mA
Quiescent Current Change	$\Delta I_q$	$-10.5\text{V} \leq V_i \leq -25\text{V}$	0-125 $^\circ\text{C}$		1	mA
		$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$	$25^\circ\text{C}$	200		$\mu\text{V}$
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-0.6		$\text{mV}/^\circ\text{C}$
Ripple Rejection	RR	$-11.5\text{V} \leq V_i \leq -21.5\text{V}, f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout Voltage	$V_d$	$I_o = 1\text{A}$	$25^\circ\text{C}$	1.1		V
Peak Current	$I_{pk}$		$25^\circ\text{C}$	2.1		A

### TYPICAL APPLICATION

