



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## TO-252-2L/TO-251 Plastic-Encapsulate Voltage Regulator

**CJ7905** Three-terminal negative voltage regulator

### FEATURES

**Maximum Output current  $I_{OM}$ : 1.5 A**

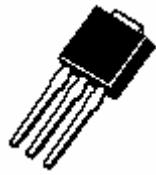
**Output voltage  $V_o$ : -5V**

**Continuous total dissipation**

$P_D$ : 1.25 W ( $T_J = 25^\circ C$ )

15 W ( $T_c = 25^\circ C$ )

TO-251  
TO-252-2L



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( $V_i = -23V, I_o = 500mA, 0^\circ C < T_J < 125^\circ C, C_i = 0.33 \mu F, C_o = 0.1 \mu F$ , unless otherwise specified )

| Parameter                | Symbol       | Test conditions                                       | MIN   | TYP  | MAX   | UNIT    |
|--------------------------|--------------|---|-------|------|-------|---------|
| Output voltage           | $V_o$        | $T_J = 25^\circ C$                                    | -4.8  | -5   | -5.2  | V       |
|                          |              | $-7V \leq V_i \leq -20V, I_o = 5mA-1A, P \leq 15W$    | -4.75 | -5   | -5.25 | V       |
| Load Regulation          | $\Delta V_o$ | $T_J = 25^\circ C, I_o = 5mA-1.5A$                    |       | 15   | 100   | mV      |
|                          |              | $T_J = 25^\circ C, I_o = 250mA-750mA$                 |       | 5    | 50    | mV      |
| Line regulation          | $\Delta V_o$ | $-7V \leq V_i \leq -25V, T_J = 25^\circ C$            |       | 12.5 | 50    | mV      |
|                          |              | $-8V \leq V_i \leq -12V, T_J = 25^\circ C$            |       | 4    | 15    | mV      |
| Quiescent Current        | $I_q$        | $T_J = 25^\circ C$                                    |       | 1.5  | 2     | mA      |
| Quiescent Current Change | $\Delta I_q$ | $-7V \leq V_i \leq -25V$                              |       |      | 0.5   | mA      |
|                          | $\Delta I_q$ | $5mA \leq I_o \leq 1A$                                |       |      | 0.5   | mA      |
| Output Noise Voltage     | $V_N$        | $10Hz \leq f \leq 100KHz$                             |       | 125  |       | $\mu V$ |
| Ripple Rejection         | $RR$         | $-8V \leq V_i \leq -18V, f = 120Hz, T_J = 25^\circ C$ | 54    | 60   |       | dB      |
| Dropout Voltage          | $V_d$        | $T_J = 25^\circ C, I_o = 1A$                          |       |      | 1.1   | V       |
| Peak Current             | $I_{pk}$     | $T_J = 25^\circ C$                                    |       |      | 2.1   | A       |

### TYPICAL APPLICATION

