



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

## SOT-89 Encapsulate Three-terminal Voltage Regulator

### CJ79L15 Three-terminal positive voltage regulator

#### FEATURES

Maximum Output current

$I_{OM}$ : 100 mA

Output voltage

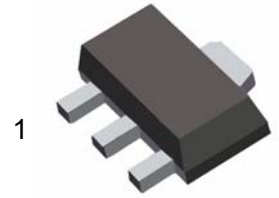
$V_O$ : -15 V

#### TO-92

1. GND

2. IN

3. OUT



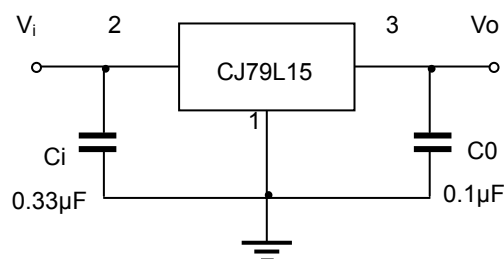
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter                            | Symbol    | Value    | Unlts |
|--------------------------------------|-----------|----------|-------|
| Input Voltage                        | $V_i$     | -35      | V     |
| Operating Junction Temperature Range | $T_{OPR}$ | -20~+120 | °C    |
| Storage Temperature Range            | $T_{STG}$ | -55~+150 | °C    |

#### ELECTRICAL CHARACTERISTICS ( $V_i=-23V, I_o=40mA, 0^{\circ}C<T_j<125^{\circ}C, C_1=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified )

| Parameter                | Symbol       | Test conditions                                                                | MIN    | TYP | MAX    | UNIT    |
|--------------------------|--------------|--------------------------------------------------------------------------------|--------|-----|--------|---------|
| Output voltage           | $V_o$        | $T_j=25^{\circ}C$                                                              | -14.4  | -15 | -15.6  | V       |
|                          |              | $-17.5V \leq V_i \leq -30V, I_o=1mA \sim 40mA$                                 | -14.25 | -15 | -15.75 | V       |
|                          |              | $-17.5V \leq V_i \leq -30V, I_o=1mA \sim 70mA$                                 | -14.25 | -15 | -15.75 | V(note) |
| Load Regulation          | $\Delta V_o$ | $T_j=25^{\circ}C, I_o=1mA \sim 100mA, V_i=-23V$                                |        | 25  | 150    | mV      |
|                          |              | $T_j=25^{\circ}C, I_o=1mA \sim 40mA, V_i=-23V$                                 |        | 15  | 75     | mV      |
| Line regulation          | $\Delta V_o$ | $-17.5V \leq V_i \leq -30V, T_j=25^{\circ}C, I_o=40mA$                         |        | 65  | 300    | mV      |
|                          |              | $-20V \leq V_i \leq -30V, T_j=25^{\circ}C, I_o=40mA$                           |        | 5   | 250    | mV      |
| Quiescent Current        | $I_q$        | $T_j=25^{\circ}C$                                                              |        |     | 6.5    | mA      |
| Quiescent Current Change | $\Delta I_q$ | $-20V \leq V_i \leq -30V, I_o=40mA$                                            |        |     | 1.5    | mA      |
|                          | $\Delta I_q$ | $1mA \leq I_o \leq 40mA, V_i=-23V$                                             |        |     | 0.1    | mA      |
| Output Noise Voltage     | $V_N$        | $10Hz \leq f \leq 100KHz$                                                      |        | 90  |        | $\mu V$ |
| Ripple Rejection         | RR           | $-18.5V \leq V_i \leq -28.5V, f=120Hz, 25^{\circ}C \leq T_j \leq 125^{\circ}C$ | 34     | 39  |        | dB      |
| Dropout Voltage          | $V_d$        | $T_j=25^{\circ}C$                                                              |        | 1.7 |        | V       |

#### TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.