



# TO-220 Encapsulate Voltage Regulator

**CJ7915** Three-terminal positive voltage regulator

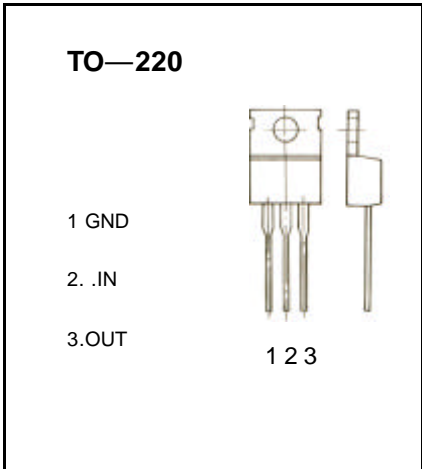
**FEATURES**

Maximum Output current

$I_{OM}$ : 1.5 A

Output voltage

$V_o$  : -15 V



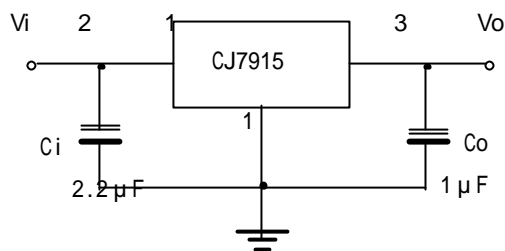
**ABSOLUTE MAXIMUM RATINGS ( Operating temperature range applies unless otherwise specified )**

| Parameter                            | Symbol    | Value    | Unit |
|--------------------------------------|-----------|----------|------|
| Input Voltage                        | $V_i$     | -35      | V    |
| Operating Junction Temperature Range | $T_{OPR}$ | -20-+125 |      |
| Storage Temperature Range            | $T_{STG}$ | -55-+150 |      |

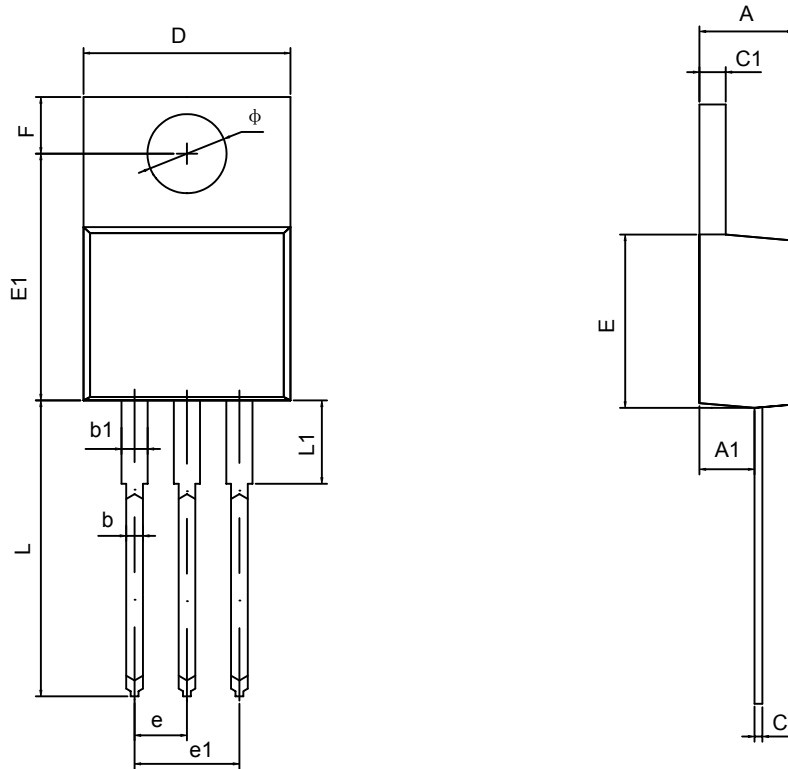
**ELECTRICAL CHARACTERISTICS**( $V_i=-23V, I_o=500mA, 0 < T_j < 125$  , $C_i=0.33 \mu F, C_o=0.1 \mu F$ , unless otherwise specified )

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

**TYPICAL APPLICATION**



## TO-220-3L PACKAGE OUTLINE DIMENSIONS



| Symbol    | Dimensions In Millimeters |        | Dimensions In Inches |       |
|-----------|---------------------------|--------|----------------------|-------|
|           | Min                       | Max    | Min                  | Max   |
| <b>A</b>  | 4.470                     | 4.670  | 1.176                | 0.184 |
| <b>A1</b> | 2.520                     | 2.820  | 0.099                | 0.111 |
| <b>b</b>  | 0.710                     | 0.910  | 0.028                | 0.036 |
| <b>b1</b> | 1.170                     | 1.370  | 0.046                | 0.054 |
| <b>c</b>  | 0.310                     | 0.530  | 0.012                | 0.021 |
| <b>c1</b> | 1.710                     | 1.370  | 0.046                | 0.054 |
| <b>D</b>  | 10.010                    | 10.310 | 0.394                | 0.406 |
| <b>E</b>  | 8.500                     | 8.900  | 0.335                | 0.350 |
| <b>E1</b> | 12.060                    | 12.460 | 0.475                | 0.491 |
| <b>e</b>  | 2.540TYP                  |        | 0.100TYP             |       |
| <b>e1</b> | 4.980                     | 5.180  | 0.196                | 0.204 |
| <b>F</b>  | 2.590                     | 2.890  | 0.102                | 0.114 |
| <b>L</b>  | 13.400                    | 13.800 | 0.528                | 0.543 |
| <b>L1</b> | 3.560                     | 3.960  | 0.140                | 0.156 |
| $\phi$    | 3.790                     | 3.890  | 0.149                | 0.153 |