

WEJ7815 Three-terminal positive voltage regulator

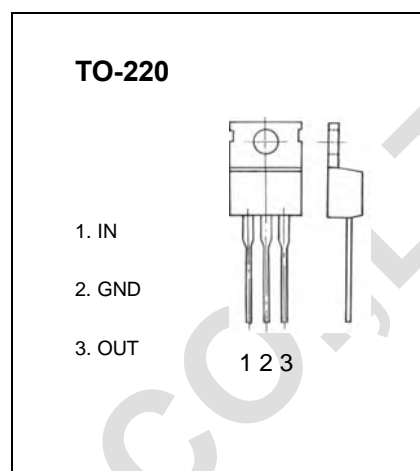
FEATURES

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 | °C |
| Storage Temperature Range | T_{STG} | -55-+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 | $T_j=25^\circ C$ | 14.4 | 15 | 15.6 | V |
| | | $17.5V \leq V_i \leq 30V, I_o=5mA-1A, P_o < 15W$ | 14.25 | 15 | 15.75 | V |
| Load Regulation | ΔV_o | $T_j=25^\circ C, I_o=5mA-1.5A$ | | 12 | 300 | mV |
| | | $T_j=25^\circ C, I_o=250mA-750mA$ | | 3 | 150 | mV |
| Line regulation | ΔV_o | $17.5V \leq V_i \leq 30V, T_j=25^\circ C$ | | 12 | 300 | mV |
| | | $20V \leq V_i \leq 26V, T_j=25^\circ C$ | | 3 | 150 | mV |
| Quiescent Current | I_q | $T_j=25^\circ C$ | | 4.3 | 8 | mA |
| Quiescent Current Change | ΔI_q | $17.5V \leq V_i \leq 30V$ | | | 1 | mA |
| | ΔI_q | $5mA \leq I_o \leq 1A$ | | | 0.5 | mA |
| Output Noise Voltage | V_N | $10Hz \leq f \leq 100KHz$ | | 90 | | μV |
| Ripple Rejection | RR | $18.5V \leq V_i \leq 28.5V, f=120Hz, T_j=25^\circ C$ | 54 | 70 | | dB |
| Dropout Voltage | V_d | $T_j=25^\circ C, I_o=1A$ | | 2 | | V |
| Short Circuit Current | I_{sc} | $T_j=25^\circ C$ | | 230 | | mA |
| Peak Current | I_{pk} | $T_j=25^\circ C$ | | 2.1 | | A |

TYPICAL APPLICATION

