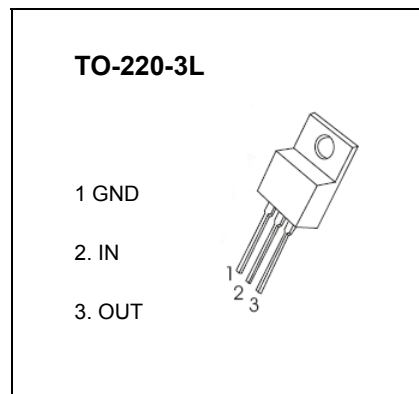


TO-220-3L Plastic-Encapsulate Voltage Regulators

CJ7906 Three-terminal negative voltage regulator

FEATURES

- Maximum output current I_{OM} : 1.5 A
- Output voltage V_o : -6 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 from Junction to Ambient | $R_{\theta JA}$ | 83.3 | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance from Junction to Case | $R_{\theta JC}$ | 8.33 | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range | T_{OPR} | 0~+150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55~+150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i = -11\text{V}$, $I_o = 500\text{mA}$, $C_i = 2.2\mu\text{F}$, $C_o = 1\mu\text{F}$, unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------|-------------------------|---|------------------------|------|-------|----------------------|
| Output Voltage | V_o | 25°C | -5.75 | -6 | -6.25 | V |
| | | $-8\text{V} \leq V_i \leq -21\text{V}$, $I_o = 5\text{mA} - 1\text{A}$, $P \leq 15\text{W}$ | 0-125 $^\circ\text{C}$ | -5.7 | -6 | -6.3 |
| Load Regulation | ΔV_o | $I_o = 5\text{mA} - 1.5\text{A}$ | 25°C | 15 | 120 | mV |
| | | $I_o = 250\text{mA} - 750\text{mA}$ | 25°C | 5 | 60 | mV |
| Line Regulation | ΔV_o | $-8\text{V} \leq V_i \leq -25\text{V}$ | 25°C | 12.5 | 120 | mV |
| | | $-9\text{V} \leq V_i \leq -13\text{V}$ | 25°C | 4 | 60 | mV |
| Quiescent Current | I_q | 25°C | | 1.5 | 2 | mA |
| Quiescent Current Change | ΔI_q | $-8\text{V} \leq V_i \leq -25\text{V}$ | 0-125 $^\circ\text{C}$ | | 1.3 | mA |
| | ΔI_q | $5\text{mA} \leq I_o \leq 1\text{A}$ | 0-125 $^\circ\text{C}$ | | 0.5 | mA |
| Output Noise Voltage | V_N | 10Hz $\leq f \leq 100\text{KHz}$ | 25°C | 150 | | μV |
| Output Voltage Drift | $\Delta V_o / \Delta T$ | $I_o = 5\text{mA}$ | 0-125 $^\circ\text{C}$ | -0.4 | | mV/ $^\circ\text{C}$ |
| Ripple Rejection | RR | $-9\text{V} \leq V_i \leq -19\text{V}$, $f = 120\text{Hz}$ | 0-125 $^\circ\text{C}$ | 54 | 60 | dB |
| Dropout Voltage | V_d | $I_o = 1\text{A}$ | 25°C | 1.1 | | V |
| Peak Current | I_{pk} | 25°C | | 2.1 | | A |

TYPICAL APPLICATION

