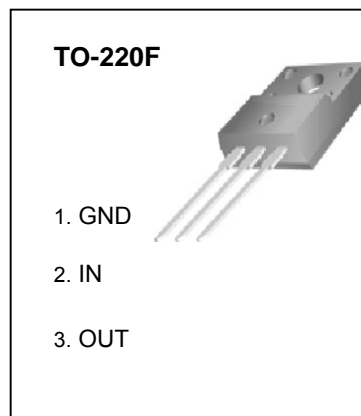




TO-220F Plastic-Encapsulate Voltage Regulator

CJ7908F Three-terminal negative voltage regulator



FEATURES

Maximum Output Current

I_{OM} : 1.5 A

Output voltage

V_o : -8 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} | 0-+150 | °C |
| Storage Temperature Range | T_{STG} | -65-+150 | °C |

ELECTRICAL CHARACTERISTICS ($V_i = -14V$, $I_o = 500mA$, $0^\circ C < T_J < 125^\circ C$, $C_i = 2 \mu F$, $C_o = 0.1 \mu F$, unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------|--------------|--|------|------|------|---------|
| Output voltage | V_o | $T_J = 25^\circ C$ | -7.7 | -8 | -8.3 | V |
| | | $-10.5V \leq V_i \leq -23V$, $I_o = 5mA-1A$, $P \leq 15W$ | -7.6 | -8 | -8.4 | V |
| Load Regulation | ΔV_o | $T_J = 25^\circ C$, $I_o = 5mA-1.5A$ | | 15 | 160 | mV |
| | | $T_J = 25^\circ C$, $I_o = 250mA-750mA$ | | 5 | 80 | mV |
| Line regulation | ΔV_o | $-10.5V \leq V_i \leq -25V$, $T_J = 25^\circ C$ | | 12.5 | 160 | mV |
| | | $-11V \leq V_i \leq -17V$, $T_J = 25^\circ C$ | | 4 | 80 | mV |
| Quiescent Current | I_q | $T_J = 25^\circ C$ | | 1.5 | 2 | mA |
| Quiescent Current Change | ΔI_q | $-10.5V \leq V_i \leq -25V$ | | 0.15 | 1 | mA |
| | ΔI_q | $5mA \leq I_o \leq 1A$ | | 0.08 | 0.5 | mA |
| Output Noise Voltage | V_N | $10Hz \leq f \leq 100KHz$ | | 200 | | μV |
| Ripple Rejection | RR | $-11.5V \leq V_i \leq -21.5V$, $f = 120Hz$, $T_J = 25^\circ C$ | 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

