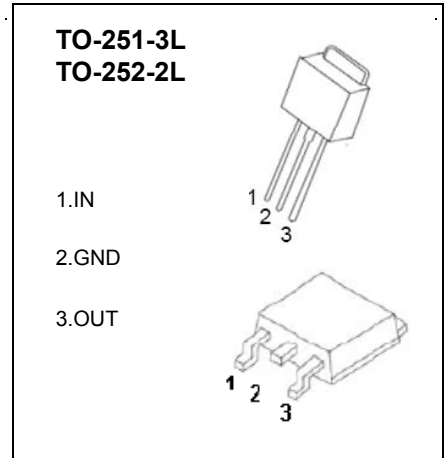


TO-252-2L TO-251-3L Plastic-Encapsulate MOSFETS

78M08 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
I_{OM}: 1.0A
- Output voltage
V_O: 8V
- Continuous total dissipation
P_D: 1.25 W (T_a = 25 °C)



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

| Parameter | Symbol | Value | Unit |
|--------------------------------------|------------------|----------|------|
| Input Voltage | V _I | 25 | V |
| Operating Junction Temperature Range | T _{OPR} | 0-+125 | °C |
| Storage Temperature Range | T _{STG} | -65-+150 | °C |

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (V_i=14V, I_o=350mA, C_i=0.33μF, C_o=0.1μF, unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------|-----------------|---|---------|-----|-----|------|
| Output Voltage | V _o | 25°C | 7.7 | 8 | 8.3 | V |
| | | 10.5V ≤ V _i ≤ 23V, I _o =5mA-350mA P _o ≤ 15W | 0-125°C | 7.6 | 8 | 8.4 |
| Load Regulation | ΔV _o | I _o =5mA-500mA | 25°C | 20 | 160 | mV |
| | | I _o =5mA-200mA | 25°C | 10 | 80 | mV |
| Line Regulation | ΔV _o | 10.5V ≤ V _i ≤ 25V, I _o =200mA | 25°C | 6 | 100 | mV |
| | | 11V ≤ V _i ≤ 25V, I _o =200mA | 25°C | 2 | 50 | mV |
| Quiescent Current | I _q | 25°C | | 4.6 | 6 | mA |
| Quiescent Current Change | ΔI _q | 10.5V ≤ V _i ≤ 25V, I _o =200mA | 0-125°C | | 0.8 | mA |
| | | 5mA ≤ I _o ≤ 350mA | 0-125°C | | 0.5 | mA |
| Output Noise Voltage | V _N | 10Hz ≤ f ≤ 100KHz | 25°C | 52 | | μV |
| Ripple Rejection | RR | 11.5V ≤ V _i ≤ 21.5V, f=120Hz, I _o =300mA | 0-125°C | 56 | 80 | dB |
| Dropout Voltage | V _d | I _o =350mA | 25°C | 2 | | V |
| Short Circuit Current | I _{sc} | V _i =14V | 25°C | 250 | | mA |
| Peak Current | I _{pk} | 25°C | | 0.5 | | A |

TYPICAL APPLICATION

