

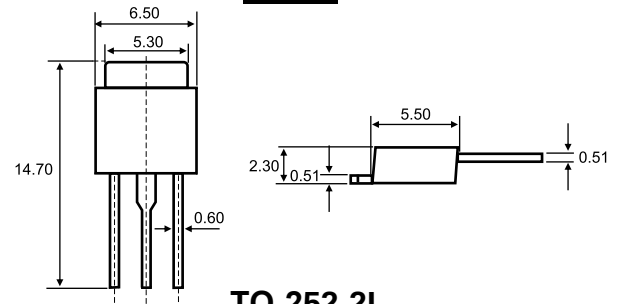
# 78M08

Three-terminal Positive Voltage Regulator

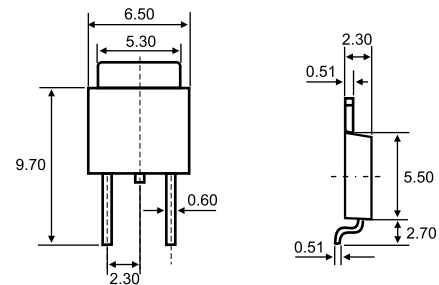
## TO-251



1.IN  
2.GND  
3.OUT



## TO-252-2L



Dimensions in inches and (millimeters)

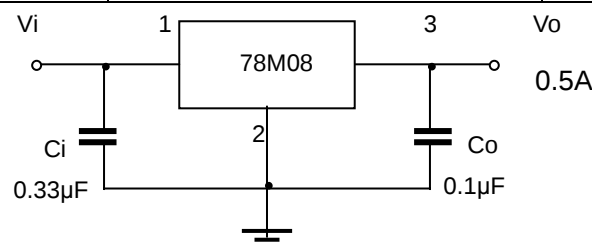
### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter                            | Symbol    | Value    | Unit |
|--------------------------------------|-----------|----------|------|
| Input Voltage                        | $V_I$     | 35       | V    |
| Operating Junction Temperature Range | $T_{OPR}$ | 0-+125   | °C   |
| Storage Temperature Range            | $T_{STG}$ | -65-+150 | °C   |

### ELECTRICAL CHARACTERISTICS ( $V_i=14V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

| Parameter                | Symbol | Test conditions                       |        | MIN | TYP | MAX | UNIT |
|--------------------------|--------|---------------------------------------|--------|-----|-----|-----|------|
| Output voltage           | Vo     |                                       | 25℃    | 7.7 | 8   | 8.3 | V    |
|                          |        | 10.5≤Vi,≤23V, Io=5mA-350mA<br>Po≤ 15W | 0-125℃ | 7.6 | 8   | 8.4 | V    |
| Load Regulation          | ΔVo    | Io=5mA-500mA                          | 25℃    |     | 20  | 160 | mV   |
|                          |        | Io=5mA-200mA                          | 25℃    |     | 10  | 80  | mV   |
| Line regulation          | ΔVo    | 10.5V≤Vi,≤25V, Io=200mA               | 25℃    |     | 6   | 100 | mV   |
|                          |        | 11V≤Vi,≤25V, Io=200mA                 | 25℃    |     | 2   | 50  | mV   |
| Quiescent Current        | Iq     |                                       | 25℃    |     | 4.6 | 6   | mA   |
| Quiescent Current Change | ΔIq    | 10.5V≤Vi,≤25V, Io=200mA               | 0-125℃ |     |     | 0.8 | mA   |
|                          | ΔIq    | 5mA≤Io≤350mA                          | 0-125℃ |     |     | 0.5 | mA   |
| Output Noise Voltage     | VN     | 10Hz≤ f ≤100KHz                       | 25℃    |     | 52  |     | uV   |
| Ripple Rejection         | RR     | 11.5V≤Vi≤21.5V,f=120Hz,Io=300mA       | 0-125℃ | 56  | 80  |     | dB   |
| Dropout Voltage          | Vd     | Io=350mA                              | 25℃    |     | 2   |     | V    |
| Short Circuit Current    | Isc    | Vi=14V                                | 25℃    |     | 250 |     | mA   |
| Peak Current             | Ipk    |                                       | 25℃    |     | 0.7 |     | A    |

### TYPICAL APPLICATION



## Typical Characteristics

