

Encapsulate Three terminal voltage regulators

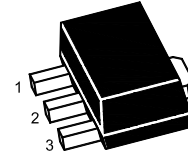
Three-terminal negative voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 0.1 A
- Output voltage
 V_o : -9 V
- Continuous total dissipation
 P_D : 0.5W

SOT-89 Plastic Package

1. GND
2. IN
3. OUT



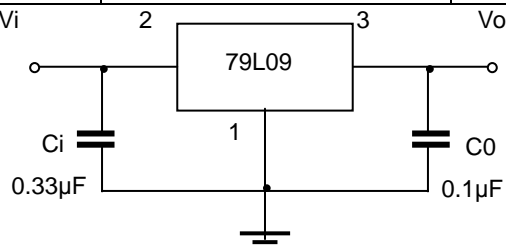
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--------------------------------------|-----------|----------|------|
| Input Voltage | V_I | -30 | V |
| Operating Junction Temperature Range | T_{OPR} | 0—+150 | °C |
| Storage Temperature Range | T_{STG} | -55—+150 | °C |

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=-16V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit | |
|--------------------------|--------------|---|---|-------|-------|-------|---|
| Output Voltage | V_o | $25^\circ C$ | -8.64 | -9.0 | -9.36 | V | |
| | | 0-125°C | -12V $\leq V_i \leq$ -24V, $I_o=1mA-40mA$ | -8.55 | -9.0 | -9.45 | V |
| | | | $I_o=1mA-70mA$ | -8.55 | -9.0 | -9.45 | V |
| Load Regulation | ΔV_o | $I_o=1mA-100mA$ $25^\circ C$ | | 19 | 90 | mV | |
| | | $I_o=1mA-40mA$ $25^\circ C$ | | 11 | 40 | mV | |
| Line Regulation | ΔV_o | -12 V $\leq V_i \leq$ -24V $25^\circ C$ | | 45 | 175 | mV | |
| | | -13V $\leq V_i \leq$ -24V $25^\circ C$ | | 40 | 125 | mV | |
| Quiescent Current | I_q | $25^\circ C$ | | 4.1 | 6.0 | mA | |
| Quiescent Current Change | ΔI_q | -13V $\leq V_i \leq$ -24V 0-125°C | | | 1.5 | mA | |
| | ΔI_q | 1mA $\leq V_i \leq$ 40mA 0-125°C | | | 0.1 | mA | |
| Output Noise Voltage | V_N | 10Hz $\leq f \leq$ 100KHz $25^\circ C$ | | 58 | | uV | |
| Ripple Rejection | RR | -15V $\leq V_i \leq$ -24V, $f=120Hz$ 0-125°C | | 45 | | dB | |
| Dropout Voltage | V_d | $25^\circ C$ | | 1.7 | | V | |

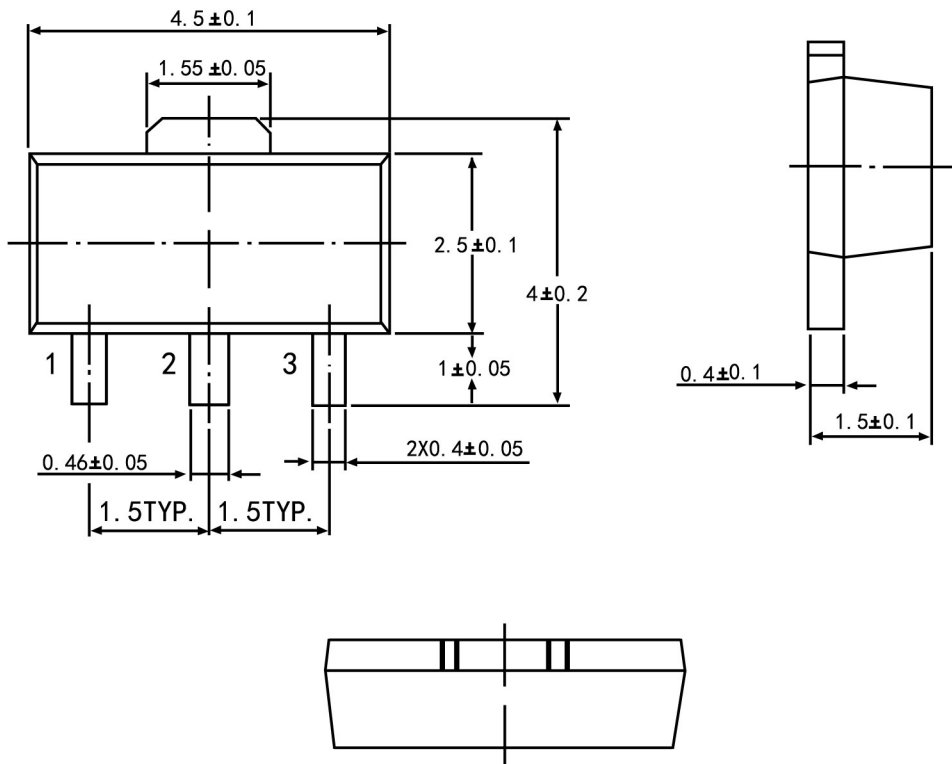
TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators



SOT-89 PACKAGE OUTLINE



| Symbol | Dimension in Millimeters | |
|----------------------|--------------------------|------|
| | Min | Max |
| A | 1.40 | 1.60 |
| B | 0.44 | 0.62 |
| B1 | 0.35 | 0.54 |
| C | 0.35 | 0.44 |
| D | 4.40 | 4.60 |
| D1 | 1.62 | 1.83 |
| E | 2.29 | 2.60 |
| e | 1.50 Typ | |
| H | 3.94 | 4.25 |
| H1 | 2.63 | 2.93 |
| L | 0.89 | 1.20 |
| All Dimensions In mm | | |