

Micro Commercial Components

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# **MC79L09F**

### Features

- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required
- Case Material:Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1

#### **Absolute Maximum Ratings**

| Parameter                      | Symbol           | Value   | Unit |
|--------------------------------|------------------|---------|------|
| Input Voltage                  | V <sub>1</sub>   | 30      | V    |
| Operating Junction Temperature | T <sub>OPR</sub> | -30+75  | °C   |
| Storage Temperature Range      | T <sub>STG</sub> | -40+125 | °C   |

# Electrical Characteristics( $V_{\rm i}=15V,$ $I_{\rm 0}=40mA,$ 0 °C <Tj<125 °C, C1=0.33uF, C\_0=0.1uF, unless otherwise specified)

| Parameter               | Sym                             | Min   | Тур   | Max   | Test conditions   |
|-------------------------|---------------------------------|-------|-------|-------|---|
| Output<br>Voltage       | V <sub>0</sub>                  | 8.64V | 9.0V  | 9.36V | Vi=15V, I <sub>0</sub> =40mA  |
| Load<br>Regulation      | $V_{o}$ -I <sub>O</sub>         |       | 12mV  | 90mV  | l₀=1mA-100mA,<br>V¡=15V   |
| Line<br>regulation      | V <sub>o</sub> - V <sub>i</sub> |       | 27mV  | 200mV | 12.5V≦V <sub>i</sub> ≦24V,<br>I <sub>0</sub> =40mA  |
| Quiescent<br>Current    | Ι <sub>q</sub>                  |       | 3.5mA | 6.0mA | Vi=15V, I <sub>0</sub> =40mA  |
| Output Noise<br>Voltage | V <sub>N</sub>                  |       | 210µV |       | 10Hz≦f≦100KHz<br>Vi=15V, I <sub>0</sub> =40mA   |
| Ripple<br>Rejection     | RR                              | 37dB  | 64dB  |       | $\begin{array}{l} 12V {\leq} V_1 {\leq} 22V, \\ I_0 {=} 40mA \\ f {=} 120Hz, \ T_j {=} 25^\circ C \\ e_{iN} {=} 1V_{P,P} \end{array}$ |

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

Typical Application:



# Three-Terminal Low Current Negative Voltage Regulator



| DIM | INCHES |      | N    | NOTES |      |
|-----|--------|------|------|-------|------|
|     | MIN    | MAX  | MIN  | MAX   |      |
| Α   | .173   | .181 | 4.39 | 4.60  |      |
| В   | .061   |      | 1.55 |       | REF. |
| С   | .154   | .165 | 3.91 | 4.25  |      |
| D   | .031   | .039 | 0.80 | 1.00  |      |
| Е   | .092   | .100 | 2.34 | 2.54  |      |
| F   | .118   |      | 3.00 |       | TYP  |
| G   | .013   | .019 | 0.33 | 0.48  |      |
| Н   | .015   | .021 | 0.38 | 0.53  |      |
| J   | .015   | .016 | 0.38 | 0.41  |      |
| К   | .055   | .063 | 1.40 | 1.60  |      |
|     |        |      |      |       |      |

# www.mccsemi.com



### **Ordering Information**

| Device           | Packing             |
|------------------|---------------------|
| (Part Number)-TP | Tape&Reel1Kpcs/Reel |

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