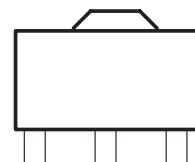




- 3-Terminal Regulators
- Output Current Up to 100 mA
- No External Components Required
- Internal Thermal-Overload Protection
- Internal Short-Circuit Current Limiting
- Direct Replacement for Motorola MC79L Series



TO-92



description

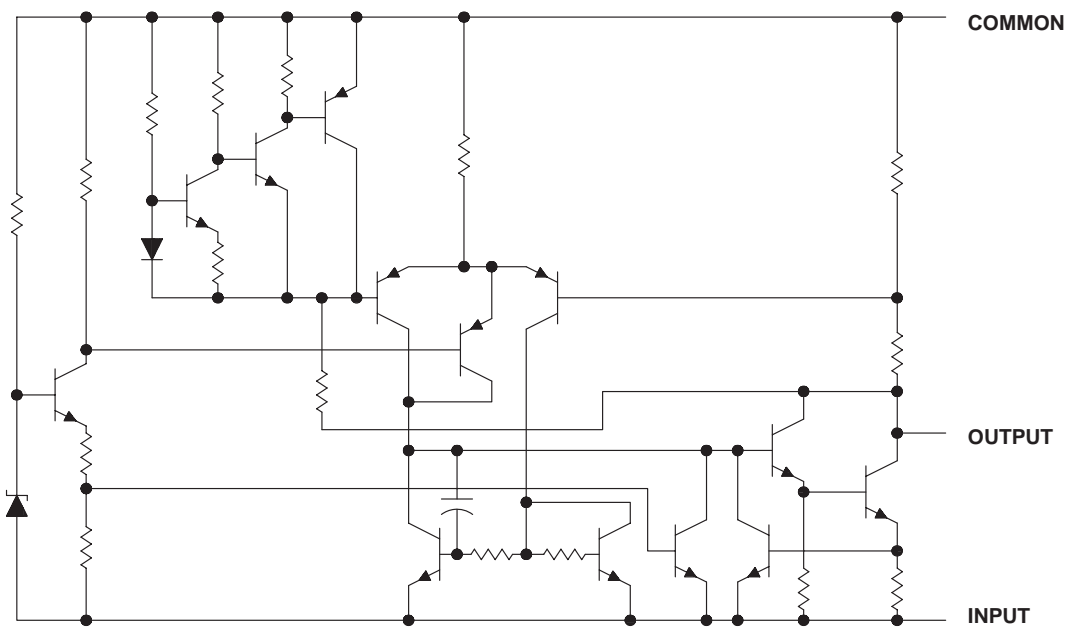
This series of fixed negative-voltage integrated-circuit voltage regulators is designed for a wide range of applications. These include on-card regulation for elimination of noise and distribution problems associated with single-point regulation. In addition, they can be used to control series pass elements to make high-current voltage-regulator circuits. One of these regulators can deliver up to 100 mA of output current. The internal current-limiting and thermal-shutdown features make them essentially immune to overload. When used as a replacement for a zener-diode and resistor combination, these devices can provide ef current.

electrical characteristics at specified virtual junction temperature, $V_I =$ otherwise noted)

| PARAMETER | TEST CONDITIONS | T ‡ | | | | UNIT |
|---------------------------|---|------------|-----|-----|-----|------|
| | | | MIN | TYP | MAX | |
| Output voltage | o $I_O = 1 \text{ mA to } 70 \text{ mA}$ | 25°C | | | | V |
| | | Full range | | | | |
| | | Full range | | | | |
| Input voltage regulation | $V_I =$ | o | | | | |
| | $V_I =$ | | | | | |
| Ripple rejection | $V_I =$ f = 120 Hz | 25°C | | | | dB |
| Output voltage regulation | $I_O = 1 \text{ mA to } 100 \text{ mA}$ | o | | | 60 | |
| | $I_O = 1 \text{ mA to } 40 \text{ mA}$ | | | | 30 | |
| Output noise voltage | f = 10 Hz to 100 kHz | 25°C | | | | μV |
| Dropout voltage | | 25°C | | 1.7 | | V |
| | | 25°C | | | | |
| | | 125°C | | | | |
| Bias current change | $V_I =$ | range | | | 1.5 | |
| | $I_O = 1 \text{ mA to } 40 \text{ mA}$ | | | | 0.1 | |

‡ Pulse-testing techniques maintain T_J as close to T_A as possible. Thermal effects must be taken into account separately. All characteristics are measured with a 0.33-μF capacitor across the input and a 0.1-μF capacitor across the output. Full range for the 7 $J = 0^\circ\text{C to } 70^\circ\text{C}$

equivalent schematic



absolute maximum ratings over operating free-air temperature range (unless otherwise noted)†

Input voltage: 79L

Operating free-air, case, or virtual junction temperature. °C

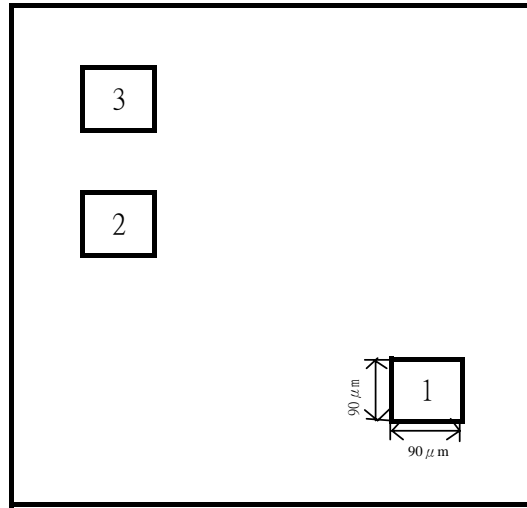
Lead temperature 1.6 mm (1/16 inch) from case for 10 seconds 260°C

Storage temperature range, T_{stg} -65°C to 150°C

recommended operating conditions

| 79L | MIN | MAX | UNIT |
|---|-----|-----|------|
| Input voltage, V_I | | | V |
| Output current, I_O | | 100 | mA |
| Operating virtual junction temperature, T_J | 0 | | °C |

Pad Location WS79L00



chip size 1.15 x 1.35mm

Pad Location Coordinates

| Pad N | Pad Name | X(μ m) | Y(μ m) |
|-------|----------|--------|--------|
| 1 | Ground | 1150 | 115 |
| 2 | Input | 115 | 690 |
| 3 | Output | 115 | 950 |