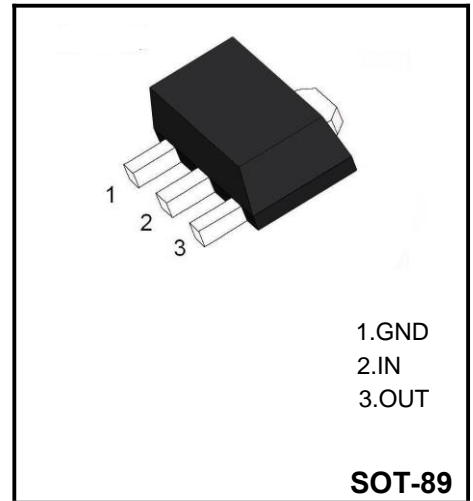


Three-Terminal Negative Voltage Regulator



Features

- Maximum Output current I_{om} : 0.1 A
- Output voltage V_o : -15V
- Continuous total dissipation P_D : 0.5 W

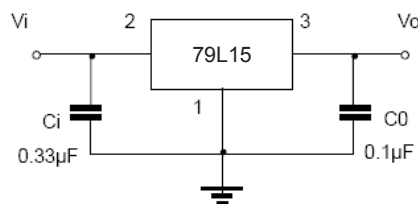
Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Rating | Unit |
|--------------------------------------|-----------|-------------|------|
| Input Voltage | V_i | -35 | V |
| Operating Junction Temperature Range | T_{OPR} | -55 to +125 | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | °C |

Electrical Characteristics (Ta=25°C, unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|--------------------------|--------------|--|--------|-----|--------|------|
| Output voltage | V_o | $T_j=25^\circ\text{C}$ | -14.4 | -15 | -15.6 | V |
| | | $-17.5\text{V} \leq V_i \leq -30\text{V}, I_o=1\text{mA}-40\text{mA}$ | -14.25 | -15 | -15.75 | V |
| | | $I_o=1\text{mA}-70\text{mA}$ | -14.25 | -15 | -15.75 | V |
| Load Regulation | ΔV_o | $T_j=25^\circ\text{C}, I_o=1\text{mA to } 100\text{mA}, V_i=-23\text{V}$ | | 25 | 150 | mV |
| | | $T_j=25^\circ\text{C}, I_o=1\text{mA to } 40\text{mA}, V_i=-23\text{V}$ | | 15 | 75 | mV |
| Line regulation | ΔV_o | $-17.5\text{V} \leq V_i \leq -30\text{V}, T_j=25^\circ\text{C}$ | | 65 | 300 | mV |
| | | $-20\text{V} \leq V_i \leq -30\text{V}, T_j=25^\circ\text{C}$ | | 50 | 250 | mV |
| Quiescent Current | I_q | 25°C | | | 6.5 | mA |
| Quiescent Current Change | ΔI_q | $0^\circ\text{C} < T_j < 125^\circ\text{C}, -20\text{V} \leq V_i \leq -30\text{V}$ | | | 1.5 | mA |
| | ΔI_q | $0^\circ\text{C} < T_j < 125^\circ\text{C}, 1\text{mA} \leq I_o \leq 40\text{mA}$ | | | 0.1 | mA |
| Output Noise Voltage | V_N | $10\text{Hz} \leq f \leq 100\text{KHz}, T_j=25^\circ\text{C}$ | | 90 | | uV |
| Ripple Rejection | RR | $-18.5\text{V} \leq V_i \leq -28.5\text{V}, f=120\text{Hz}$ | 34 | 39 | | dB |
| Dropout Voltage | V_d | $T_j=25^\circ\text{C}$ | | 1.7 | | V |

Typical applications



Ordering information

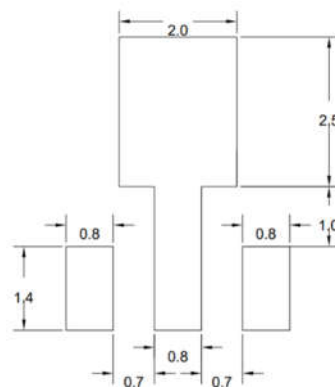
| Package | Packing Description | Base Quantity | Packing Quantity |
|---------|---------------------|---------------|-----------------------------|
| SOT-89 | Tape/Reel,7"reel | 1000pcs/Reel | 6000PCS/Box 30000PCS/Carton |

Package Dimensions

SOT-89

| Dim | Millimeter | | Inches | |
|-----|------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.40 | 1.60 | 0.055 | 0.063 |
| b | 0.32 | 0.52 | 0.013 | 0.020 |
| b1 | 0.38 | 0.58 | 0.015 | 0.023 |
| c | 0.35 | 0.45 | 0.014 | 0.018 |
| D | 4.40 | 4.60 | 0.173 | 0.181 |
| D1 | 1.45 | 1.65 | 0.057 | 0.065 |
| D2 | 1.70 | 1.80 | 0.067 | 0.071 |
| E | 2.30 | 2.60 | 0.091 | 0.102 |
| E1 | 3.95 | 4.25 | 0.156 | 0.167 |
| E2 | 1.80 | 2.00 | 0.071 | 0.079 |
| e | 1.40 | 1.60 | 0.055 | 0.063 |
| e1 | 2.80 | 3.20 | 0.110 | 0.126 |
| L | 0.90 | 1.20 | 0.035 | 0.047 |

The recommended mounting pad size



UNIT:MM

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