# NEGATIVE VOLTAGE REGULATOR

**LM79L05**

**TO-92**
**Plastic Package**


pin 1.Ground
2. Input
3. Output

**The Voltages Available allow these Regulators to be used in Logic Systems, Instrumentation, Hi-Fi Audio Circuits and other Solid State Electronic Equipment**

## ABSOLUTE MAXIMUM RATINGS

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Input Voltage | $V_{IN}$ | -30 | V |
| Power Dissipation | $P_D$ | 625 | mW |
| Operating Junction Temperature Range | $T_j$ | 0 to 150 | ºC |
| Storage Temperature Range | $T_{stg}$ | - 65 to +150 | ºC |
| Lead Temperature 1.6mm (1/16inch) from Case for 10 seconds | $T_L$ | 260 | ºC |

## Recommended Operating Conditions

| DESCRIPTION | SYMBOL | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|
| Input Voltage | $V_I$ | -7 | | -20 | V |
| Output Current | $I_O$ | | | 100 | mA |
| Operating Junction Temperature | $T_j$ | 0 | | 125 | ºC |

## ELECTRICAL CHARACTERISTICS

**(At Specified Virtual Junction Temperature, $V_I$= -10V, $I_O$=40mA, (unless specified otherwise)**

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| Output Voltage | $V_O$ | 25ºC | -4.80 | | -5.20 | V |
| | | $I_O$=1mA to 40mA, 0ºC to 125ºC<br>$V_I$= -7V to -20V, 0ºC to 125ºC | -4.75 | | -5.25 | V |
| | | $I_O$=1mA to 70mA, 0ºC to 125ºC | -4.75 | | -5.25 | V |
| Line Regulation | $R_{BGIN}$ | $V_I$= -7V to -20V, 25ºC | | | 150 | mV |
| | | $V_I$= -8 to -20V, 25ºC | | | 100 | mV |
| Ripple Rejection | $R_R$ | $V_I$= -8V to -18V, f=120Hz, 25ºC | 41 | | | dB |
| Load Regulation | $R_{BGL}$ | $I_O$=1mA to100mA, 25ºC | | | 60 | mV |
| | | $I_O$=1mA to 40mA, 25ºC | | | 30 | mV |
| Output Noise Voltage | $V_{NO}$ | f=10Hz to 100KHz, 25ºC | | 40 | | µV |
| Dropout Voltage | $V_{DIF\ (min)}$ | 25ºC | | 1.7 | | V |
| Quiescent Current | $I_Q$ | 25ºC | | | 6.0 | mA |
| | | 125ºC | | | 5.5 | mA |
| Quiescent Current Change | $\Delta I_{QIN}$ | $V_I$= -8V to -20V, 0ºC to 125ºC | | | 1.5 | mA |
| | $\Delta I_{QL}$ | $I_O$=1mA to 40mA, 0ºC to 125ºC | | | 0.1 | mA |

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## Disclaimer

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