

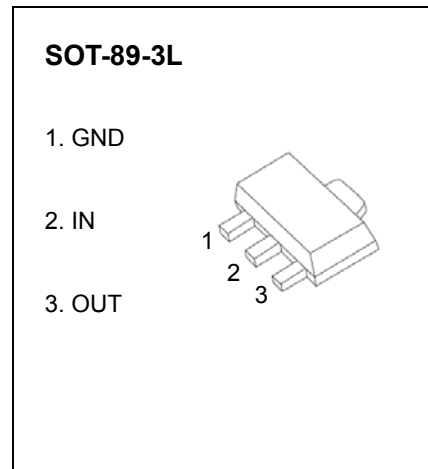


**SOT-89-3L Encapsulate Three Terminal Voltage Regulators**

**CJ79L05** Three-terminal negative voltage regulator

**FEATURES**

- Maximum output current  
 $I_{OM}: 0.1A$
- Output voltage  
 $V_o: -5V$
- Continuous total dissipation  
 $P_D: 0.5W$



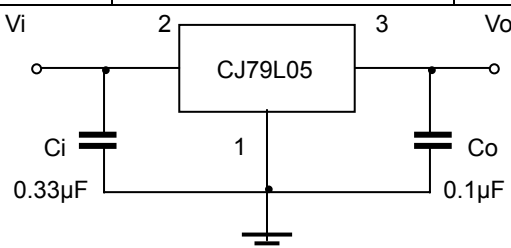
**ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)**

| Parameter                            | Symbol    | Value    | Units |
|--------------------------------------|-----------|----------|-------|
| 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 ( $V_i = -10V, I_o = 40mA, C_i = 0.33\mu F, C_o = 0.1\mu F$ , unless otherwise specified)**

| Parameter                | Symbol       | Test conditions                     | Mj  | Tnd   | Max  | Unit  |   |
|--------------------------|--------------|-------------------------------------|---|-------|------|-------|---|
| Output Voltage           | $V_o$        | $25^\circ C$                        | -4.8  | -5.0  | -5.2 | V     |   |
|                          |              | 0-125°C                             | $-7V \leq V_i \leq -20V, I_o = 1mA \sim 40mA$ | -4.75 | -5.0 | -5.25 | V |
|                          |              |                                     | $I_o = 1mA \sim 70mA$                         | -4.75 | -5.0 | -5.25 | V |
| Load Regulation          | $\Delta V_o$ | $I_o = 1mA \sim 100mA$              | $25^\circ C$                                  | 20    | 60   | mV    |   |
|                          |              | $I_o = 1mA \sim 40mA$               | $25^\circ C$                                  | 10    | 30   | mV    |   |
| Line Regulation          | $\Delta V_o$ | $-7V \leq V_i \leq -20V$            | $25^\circ C$                                  | 15    | 150  | mV    |   |
|                          |              | $-8V \leq V_i \leq -20V$            | $25^\circ C$                                  | 12    | 100  | mV    |   |
| Quiescent Current        | $I_q$        | $25^\circ C$                        |   |       | 6    | mA    |   |
| Quiescent Current Change | $\Delta I_q$ | $-8V \leq V_i \leq -20V$            | 0-125°C                                       |       | 1.5  | mA    |   |
|                          |              | $1mA \leq I_o \leq 40mA$            | 0-125°C                                       |       | 0.1  | mA    |   |
| Output Noise Voltage     | $V_N$        | 10Hz ≤ f ≤ 100KHz                   | $25^\circ C$                                  | 40    |      | μV    |   |
| Ripple Rejection         | RR           | $-8V \leq V_i \leq -18V, f = 120Hz$ | 0-125°C                                       | 41    | 49   | 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.