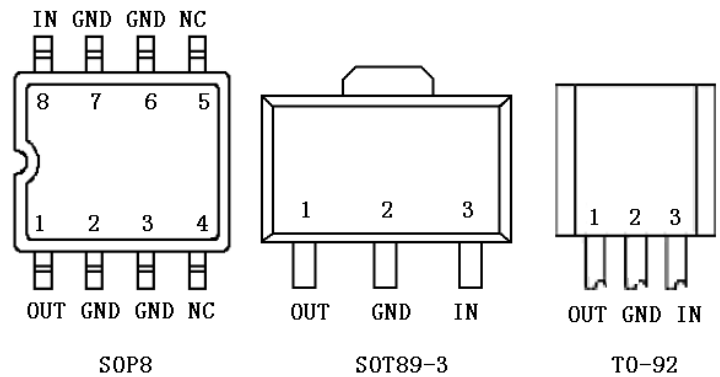


FEATURES

- **Maximum Output current: 0.1A**
- **Output Voltage: 5V**
- **Thermal Overload Protection**
- **2%Output Voltage Accuracy**

PIN CONNECTION



Absolute Maximum Ratings (Ta=25°C)

| Characteristics | Symbol | Value | Unit |
|--------------------------------------|-----------|------------|------|
| Input Voltage | V_i | 35 | V |
| Operating Junction Temperature Range | T_j | -40 ~ +125 | °C |
| Power Dissipation | P_d | TO-92 | 625 |
| | | SOT-89 | 350 |
| | | SOP8 | 500* |
| Operating Temperature Range | T_{opr} | -40 ~ +85 | °C |
| Storage Temperature Range | T_{stg} | -40 ~ +150 | °C |

ELECTRICAL CHARACTERISTICS

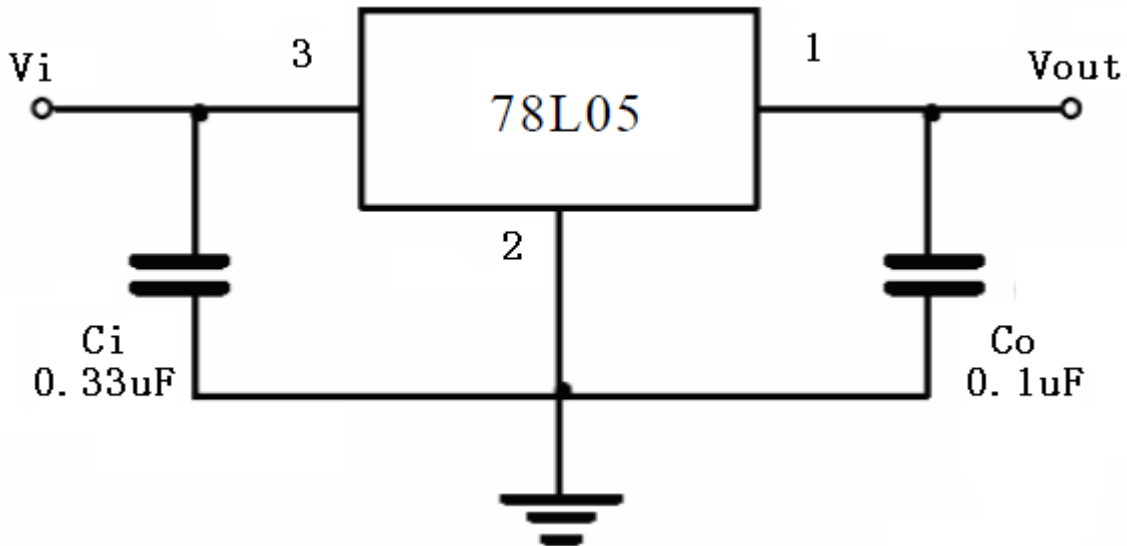
(unless otherwise noted, $V_i=10V, I_o=40mA, -30 < T_j < 85^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$) (Note1)

| Characteristics | Test conditions | Symbol | Min | Typ | Max | Unit |
|----------------------------------|--|-------------------------|-----|-------|-----|-----------|
| Output Voltage | $T_j=25^\circ C$ | V_o | 4.9 | 5 | 5.1 | V |
| | $7V \leq V_i \leq 20V; I_o=1mA \sim 40mA$ | | 4.8 | | 5.2 | V |
| | $7V \leq V_i \leq V_{max}; I_o=1mA \sim 70mA$ | | 4.8 | | 5.2 | V (Note2) |
| Load Regulation | $T_j=25^\circ C; I_o=1mA \sim 100mA$ | ΔV_o | | 11 | 60 | mV |
| | $T_j=25^\circ C; I_o=1mA \sim 40mA$ | | | 5 | 6 | mV |
| Line Regulation | $T_j=25^\circ C; 7V \leq V_i \leq 20V$ | ΔV_o | | 8 | 150 | mV |
| | $T_j=25^\circ C; 8V \leq V_i \leq 20V$ | | | 6 | 100 | mV |
| Quiescent Current | | I_q | | 2 | 5.5 | mA |
| Quiescent Current Change | $8V \leq V_i \leq 20V$ | ΔI_q | | | 1.5 | mA |
| | $1mA \leq I_o \leq 40mA$ | | | | 0.2 | mA |
| Output Noise Voltage | $10Hz \leq f \leq 100kHz$ | V_N | | 40 | | μV |
| Temperature Coefficient of V_o | $I_o=5mA$ | $\Delta V_o / \Delta T$ | | -0.65 | | mV/°C |
| Ripple Rejection | $10V \leq V_i \leq 20V; f=120Hz; T_j=25^\circ C$ | RR | 41 | 48 | | dB |
| Dropout Voltage | $T_j=25^\circ C$ | V_d | | 1.7 | | V |

Note 1: The Maximum steady state usable output current and input voltage are very dependent on the heating sinking and/or lead temperature length of the package. The data above represent pulse test conditions with junction temperatures as indicated at the initiation of test.

Note 2: Power dissipation To-92<0.625W, SOT-89<0.35W, SOP8<0.5W

APPLICATION CIRCUIT



*Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

OUTLINE DRAWING

