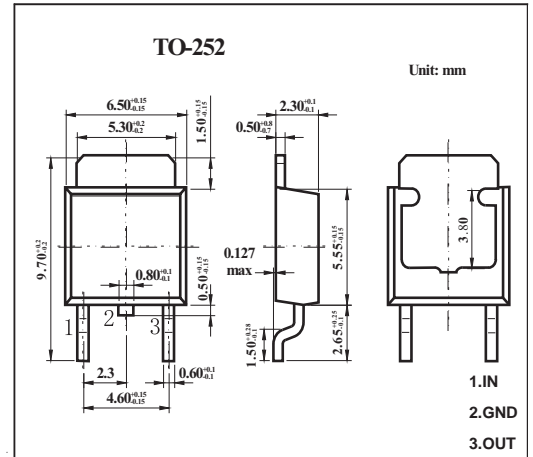


**Three-terminal positive voltage regulator**
**FEATURES**

- Maximum output current IOM: 1.5 A
- Output voltage $V_O$ : 5V
- Continuous total dissipation PD: 1.25 W

**MECHANICAL DATA**

- Case: TO-252 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any


**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter                               | Symbol          | Value    | Unit |
|---|-----------------|----------|------|
| Input Voltage                           | $V_i$           | 35       | V    |
| Thermal Resistance from Junction to Air | $R_{\theta JA}$ | 80       | °C/W |
| Operating Junction Temperature Range    | $T_{OPR}$       | -25~+125 | °C   |
| Storage Temperature Range               | $T_{STG}$       | -65~+150 | °C   |

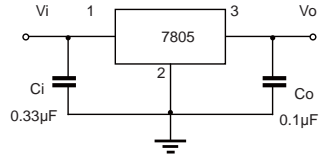
**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE**  
 ( $V_i=10V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

| Parameter                | Symbol                | Test conditions                    |           | Min  | Typ  | Max  | Unit        |
|--------------------------|-----------------------|------------------------------------|-----------|------|------|------|-------------|
| Output Voltage           | $V_o$                 |                                    | 25°C      | 4.8  | 5.0  | 5.2  | V           |
|                          |                       | $7V \leq V_i \leq 20V, I_o=5mA-1A$ | -25-125°C | 4.75 | 5.00 | 5.25 | V           |
| Load Regulation          | $\Delta V_o$          | $I_o=5mA-1.5A$                     | 25°C      |      | 9    | 100  | mV          |
|                          |                       | $I_o=250mA-750mA$                  | 25°C      |      | 4    | 50   | mV          |
| Line Regulation          | $\Delta V_o$          | $7V \leq V_i \leq 25V$             | 25°C      |      | 4    | 100  | mV          |
|                          |                       | $8V \leq V_i \leq 12V$             | 25°C      |      | 1.6  | 50   | mV          |
| Quiescent Current        | $I_q$                 |                                    | 25°C      |      | 5    | 8    | mA          |
| Quiescent Current Change | $\Delta I_q$          | $7V \leq V_i \leq 25V$             | -25-125°C |      | 0.3  | 1.3  | mA          |
|                          |                       | $5mA \leq I_o \leq 1A$             | -25-125°C |      | 0.03 | 0.5  | mA          |
| Output Noise Voltage     | $V_N$                 | $10Hz \leq f \leq 100KHz$          | 25°C      |      | 42   |      | $\mu V/V_o$ |
| Output voltage drift     | $\Delta V_o/\Delta T$ | $I_o=5mA$                          | -25-125°C |      | -1.1 |      | mV/°C       |
| Ripple Rejection         | RR                    | $8V \leq V_i \leq 18V, f=120Hz$    | -25-125°C | 62   | 73   |      | dB          |
| Dropout Voltage          | $V_d$                 | $I_o=1A$                           | 25°C      |      | 2    |      | V           |
| Output resistance        | $R_o$                 | $f=1KHz$                           | 25°C      |      | 10   |      | m $\Omega$  |
| Short Circuit Current    | $I_{sc}$              |                                    | 25°C      |      | 230  |      | mA          |
| Peak Current             | $I_{pk}$              |                                    | 25°C      |      | 2.2  |      | A           |

\* Pulse test.

# RATINGS AND CHARACTERISTIC CURVES

## Typical Characteristics



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

