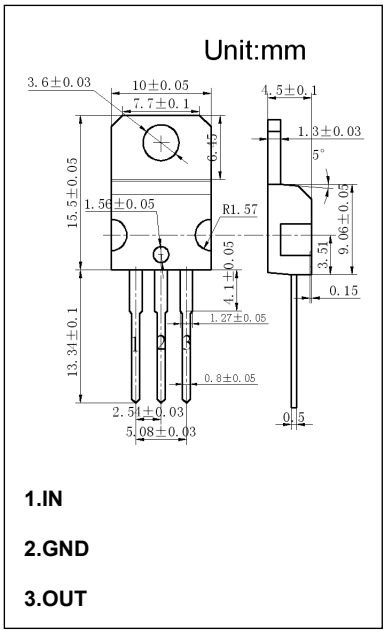
# TO-220AB Three-terminal positive voltage regulator

## Features:

Maximum Output current $I_{OM}$: 1.2 A
Output voltage $V_o$: 5 V
Continuous total dissipation




## Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

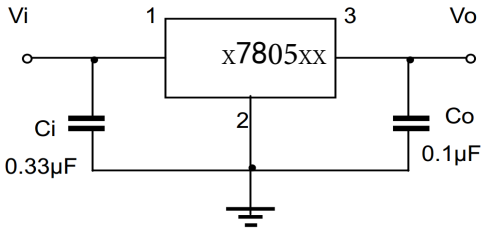
| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_i$ | Input Voltage | 35 | V |
| $T_{OPR}$ | Operating Junction Temperature Range | 0 to +125 | °C |
| $T_{STG}$ | Storage Temperature Range | -55 to +150 | °C |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient | 83.3 | °C/W |
| $R_{\theta JC}$ | Thermal Resistance from Junction to Case | 8.3 | °C/W |

## Electrical Characteristics At Specified Virtual Junction Temperature

(Vi=10V,Io=500mA, Ci=0.33μF,Co=0.1μF,unless otherwise specified)

| Symbol | Parameter | Test conditions | | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|---|
| Vo | Output Voltage | | 25°C | 4.8 | 5.0 | 5.2 | V |
| | | 7V≤ Vi ≤20V,$I_O$=5mA-1A,P≤15W | 0-125°C | 4.75 | 5.00 | 5.25 | V |
| ΔVo | Load Regulation | $I_O$=5mA - 1.2A | 25°C | | 9 | 100 | mV |
| | | $I_O$=250mA - 750mA | 25°C | | 4 | 50 | mV |
| ΔVo | Line Regulation | 7V≤ Vi ≤25V | 25°C | | 4 | 100 | mV |
| | | 8V≤ Vi ≤12V | 25°C | | 1.6 | 50 | mV |
| Iq | Quiescent Current | | 25°C | | 5 | 8 | mA |
| ΔIq | Quiescent Current Change | 7V≤ Vi ≤25V | 0-125°C | | 0.3 | 1.3 | mA |
| ΔIq | | 5 mA≤$I_O$≤1A | 0-125°C | | 0.03 | 0.5 | mA |
| ΔVO/ΔT | Output Voltage Drift | $I_O$=5mA | 0-125°C | | -1.1 | | mV/°C |
| VN | Output Noise Voltage | f =10Hz to 100KHz | 25°C | | 42 | | μV |
| RR | Ripple Rejection | f =120Hz,8V≤ $V_i$ ≤18V | 0-125°C | 62 | 73 | | dB |
| Vd | Dropout Voltage | $I_O$=1.0A | 25°C | | 2 | | V |
| RO | Output Resistance | f = 1KHz | 25°C | | 10 | | mΩ |
| Isc | Short Circuit Current | | 25°C | | 230 | | mA |
| Ipk | Peak Current | | 25°C | | 2.2 | | A |

## Typical Application



## Typical Characteristics