

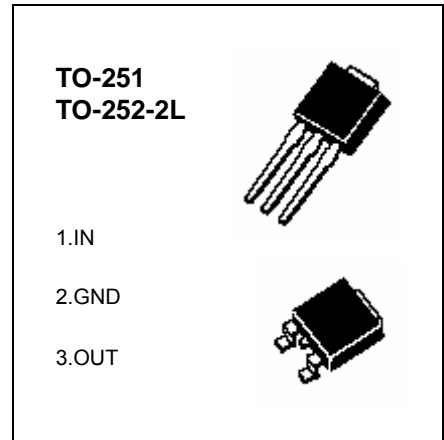


TO-251/TO-252-2L Plastic-Encapsulate Transistors

78M05 Three-terminal positive voltage regulator

FEATURES

- Maximum Output current
I_{OM}: 0.5 A
- Output voltage
V_O: 5V
- Continuous total dissipation
P_D: 1.25 W



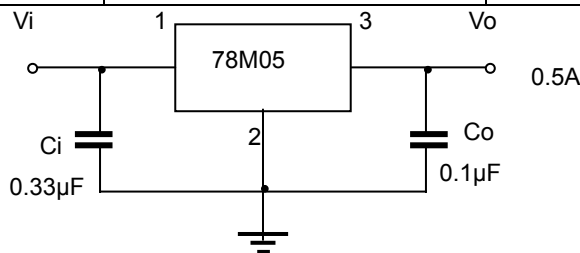
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|--------------------------------------|------------------|----------|------|
| Input Voltage | V _i | 25 | V |
| Operating Junction Temperature Range | T _{OPR} | 0-+125 | °C |
| Storage Temperature Range | T _{STG} | -65-+150 | °C |

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE (V_i=10V, I_o=350mA, C_i=0.33μF, C_o=0.1μF, unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------|-----------------|--|---------|------|-----|------|
| Output voltage | V _o | 25°C | 4.8 | 5 | 5.2 | V |
| | | 7V ≤ V _i ≤ 20V, I _o =5mA-350mA P _o ≤ 15W | 0-125°C | 4.75 | 5 | 5.25 |
| Load Regulation | ΔV _o | I _o =5mA-0.5A | 25°C | 15 | 100 | mV |
| | | I _o =5mA-200mA | 25°C | 5 | 50 | mV |
| Line regulation | ΔV _o | 7V ≤ V _i ≤ 25V, I _o =200mA | 25°C | 3 | 100 | mV |
| | | 8V ≤ V _i ≤ 25V, I _o =200mA | 25°C | 1 | 50 | mV |
| Quiescent Current | I _q | 25°C | | 4.2 | 6 | mA |
| Quiescent Current Change | ΔI _q | 8V ≤ V _i ≤ 25V, I _o =200mA | 0-125°C | | 0.8 | mA |
| | | 5mA ≤ I _o ≤ 350mA | 0-125°C | | 0.5 | mA |
| Output Noise Voltage | V _N | 10Hz ≤ f ≤ 100KHz | 25°C | 40 | 200 | uV |
| Ripple Rejection | RR | 8V ≤ V _i ≤ 18V, f=120Hz, I _o =300mA | 0-125°C | 62 | 80 | dB |
| Dropout Voltage | V _d | I _o =350mA | 25°C | 2 | 2.5 | V |
| Short Circuit Current | I _{sc} | V _i =10V | 25°C | 300 | | mA |
| Peak Current | I _{pk} | | 25°C | 0.5 | | A |

TYPICAL APPLICATION



Typical Characteristics

CJ78MXX

