

TECHNICAL DATA
DATA SHEET 144, REV. -

POSITIVE 5 VOLT VERY LOW DROPOUT VOLTAGE REGULATOR

FEATURES:

- **LOW DROPOUT VOLTAGE**
- **ISOLATED HERMETIC PACKAGE**
- **SIMILAR to INDUSTRY TYPE LM2940 - 5**

ELECTRICAL CHARACTERISTICS

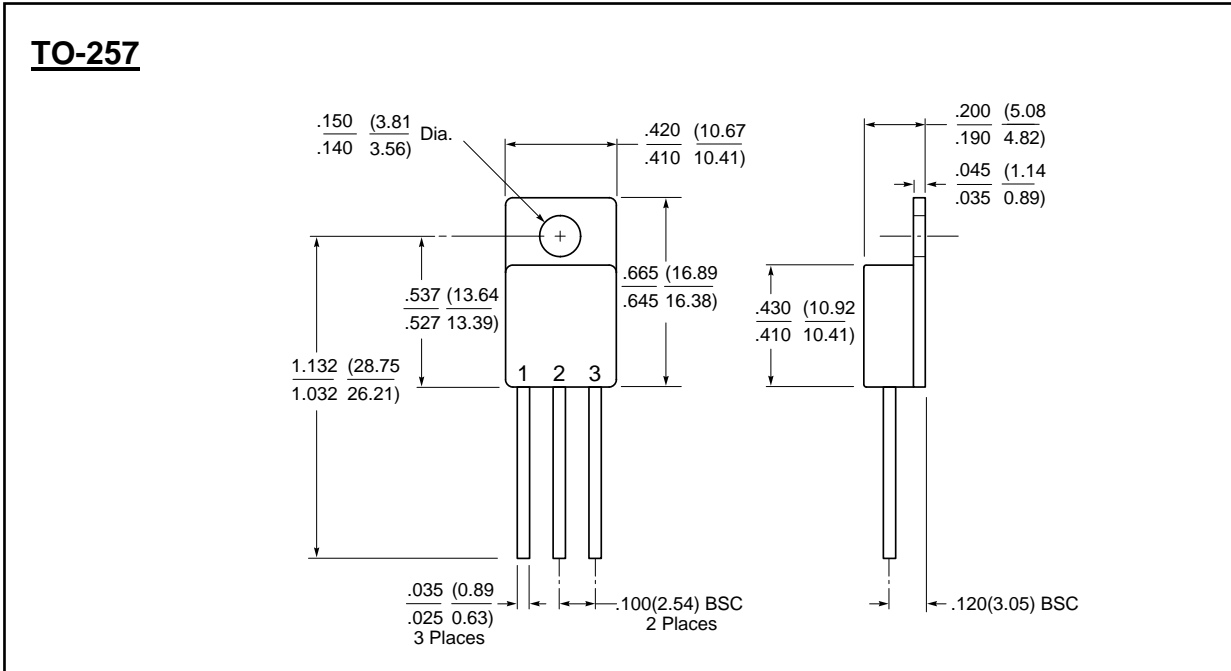
All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

| Parameter | Conditions | Typical | Limit | Units |
|---|--|----------|--|----------------------------|
| Output Voltage | $5\text{ mA} \leq I_O \leq 1\text{ A}$ $6.25\text{ V} \leq V_{IN} \leq 26\text{ V}$ | 5.00 | 4.75 5.25 | V_{MIN} V_{MAX} |
| Line Regulation | $V_O + 2\text{ V} \leq V_{IN} \leq 26\text{ V}$, $I_O = 5\text{ mA}$ | 20 | 50 | mV_{MAX} |
| Load Regulation | $50\text{ mA} \leq I_O \leq 1\text{ A}$ | 35 | 100 | mV_{MAX} |
| Output Impedance | 100 mADC and 20 mA _{rms} , $f_O = 120\text{ Hz}$ | 35 | 1000 | $\text{m}\Omega$ |
| Quiescent Current | $V_O + 2\text{ V} \leq V_{IN} \leq 26\text{ V}$, $I_O = 5\text{ mA}$ | 10 10 | 20 | mA_{MAX} |
| | $V_{IN} = V_O + 5\text{ V}$, $I_O = 1\text{ A}$ | 30 | 60 | mA_{MAX} |
| Output Noise Voltage | 10 Hz - 100kHz, $I_O = 5\text{ mA}$ | 150 | 700 | μV_{rms} |
| Ripple Rejection | $f_O = 1\text{ kHz}$, 1 V_{rms} , $I_O = 5\text{ mA}$ | - | 50 | dB_{MIN} |
| Long Term Stability | - | 20 | - | $\text{mV}/1000\text{ Hr}$ |
| Dropout Voltage | $I_O = 1\text{ A}$ | 0.5 | 1.0 | V_{MAX} |
| | $I_O = 100\text{ mA}$ | 110 | 200 | mV_{MAX} |
| Short Circuit Current | See Note 1 | 1.9 | 1.3 | A_{MIN} |
| Maximum Line Transient | $R_O = 100\Omega$ $t \leq 20\text{ ms}$ | 55 | 40 | V_{MIN} |
| Reverse Polarity DC Input Voltage | $R_O = 100\Omega$ | -30 | -15 | V_{MIN} |
| Reverse Polarity Transient Input Voltage | $R_O = 100\Omega$ $t \leq 20\text{ ms}$ | -55 | -45 | V_{MIN} |
| Maximum Junction Temperature | - | - | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | - | - | $-65^\circ\text{C} \leq T_J \leq +150^\circ\text{C}$ | $^\circ\text{C}$ |
| Input Voltage | - | - | 26 | V |
| Operating Temperature Range | - | - | $-55^\circ\text{C} \leq T_A \leq +125^\circ\text{C}$ | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case | - | - | 3 | $^\circ\text{C}/\text{W}$ |

- $V_{IN} = V_O + 5\text{ V}$, $I_O = 1\text{ A}$, $C_O = 22\mu\text{F}$, unless otherwise specified.

1. Output current will decrease with increasing temperature but will not drop below 1A at the maximum specified temperature.

MECHANICAL DIMENSIONS



PINOUT TABLE

| TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------------|-----------------|--------|------------------|
| TO - 257, 5V Regulator | V _{IN} | GROUND | V _{OUT} |

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