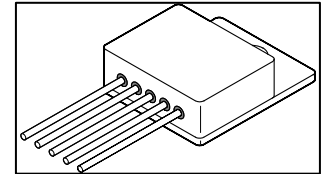


TECHNICAL DATA
DATA SHEET 4054, REV. -

LOW DROP OUT POSITIVE ADJUSTABLE VOLTAGE REGULATOR



DESCRIPTION: 3A, VERY LOW DROPOUT ADJUSTABLE POSITIVE REGULATOR

FEATURES:

- LOW DROPOUT, 340mV at 3A Output Current
- FAST RESPONSE
- REMOTE SENSE OPTION (-A)
- REMOTE SHUTDOWN
- ELECTRICALLY EQUIVALENT TO LT1764A
- FIVE TERMINAL MO-078 HERMETIC PACKAGE

ABSOLUTE MAXIMUM RATINGS

| PARAMETER | MIN | TYP | MAX | UNIT |
|--|-----|-----|-----|-----------------------------|
| INPUT VOLTAGE V_{IN} , V_{OUT} , SD | - | - | 20 | V |
| INPUT VOLTAGE V_{SENSE} | - | - | 7 | V |
| INPUT – OUTPUT DIFFERENTIAL VOLTAGE | - | - | 20 | V |
| POWER DISSIPATION $T_c = 25^\circ\text{C}$ | - | - | 20 | W |
| THERMAL RESISTANCE $R_{th} (j-c)$ | - | - | 6.5 | $^\circ\text{C} / \text{W}$ |
| STORAGE TEMPERATURE RANGE | -65 | - | 150 | $^\circ\text{C}$ |
| OPERATING JUNCTION TEMPERATURE RANGE | | | | $^\circ\text{C}$ |
| CONTROL SECTION | -40 | - | 125 | |
| POWER TRANSISTOR SECTION | -40 | - | 150 | |

SENSITRON

TECHNICAL DATA
DATA SHEET 4054, REV. -

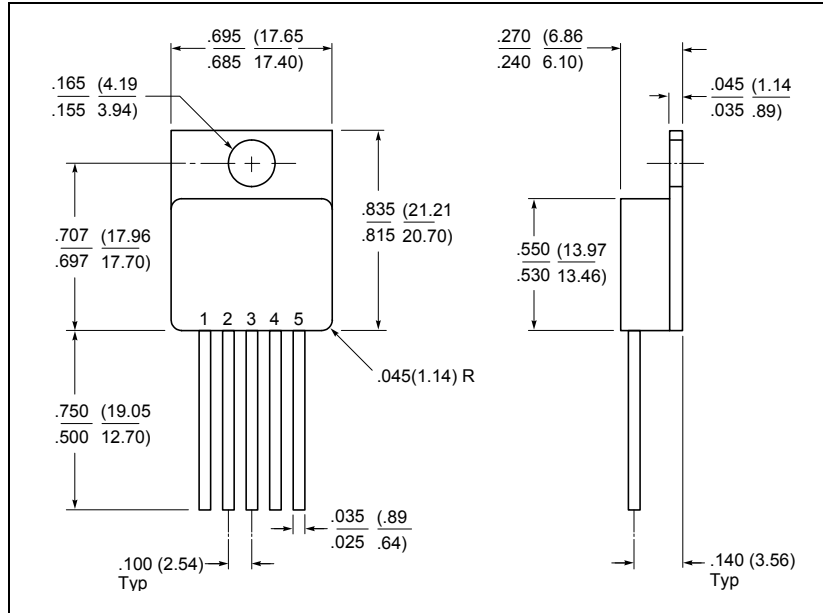
ELECTRICAL CHARACTERISTICS (AT $T_C=25^{\circ}\text{C}$, V_{SENSE} NOT CONECTED UNLESS OTHERWISE SPECIFIED)

| PARAMETER | MIN | TYP | MAX | UNIT |
|--|----------------|----------------|----------------|--------------------------------|
| OUTPUT VOLTAGE $V_{\text{IN}}=3.3\text{V}$, $I_{\text{O}}=3\text{A}$ $T_C=25^{\circ}\text{C}$ $T_C=-55^{\circ}\text{C}$ to 125°C | 2.462 2.412 | 2.500 2.500 | 2.538 2.575 | V V |
| LINE REGULATION $V_{\text{IN}}=3\text{V}$ to 20V , $I_{\text{O}}=1\text{mA}$ $T_C=-55^{\circ}\text{C}$ to 125°C | - | 4 | 10 | mV |
| LOAD REGULATION $V_{\text{IN}}=3.5\text{V}$, $I_{\text{O}}=1\text{mA}$ to 3A $T_C=25^{\circ}\text{C}$ $T_C=-55^{\circ}\text{C}$ to 125°C | - - | 4 - | 10 30 | mV mV |
| DROP OUT VOLTAGE $I_{\text{O}}=3\text{A}$ $T_C=25^{\circ}\text{C}$ $T_C=-55^{\circ}\text{C}$ to 125°C | - - | 0.34 - | 0.45 0.66 | V V |
| CURRENT LIMIT $V_{\text{IN}}=3.5\text{V}$, $V_{\text{OUT DROP}}=0.1\text{V}$, $T_C=-55^{\circ}\text{C}$ to 125°C | 3.1 | - | - | A |
| RIPPLE REJECTION $V_{\text{IN}}=4\text{V}$, $I_{\text{O}}=1.5\text{A}$, $f=120\text{Hz}$, $V_{\text{RIPPLE}}=0.5V_{\text{P-P}}$ | 55 | 63 | - | dB |
| SHUTDOWN PIN CURRENT $V_{\text{SHDN}}=0\text{V}$ $V_{\text{SHDN}}=20\text{V}$ | - - | 0.01 7 | 1 30 | μA μA |
| SHUTDOWN PIN THRESHOLD $V_{\text{OUT}}=\text{OFF}$ to ON $V_{\text{OUT}}=\text{ON}$ to OFF | - 0.25 | 0.9 0.75 | 2 - | V V |
| OUTPUT VOLTAGE NOISE $C_{\text{OUT}}=10\mu\text{F}$, $I_{\text{O}}=3\text{A}$, BW = 10 Hz to 100 KHz | - | 40 | - | μV_{RMS} |

SENSITRON

**TECHNICAL DATA
DATA SHEET 4054, REV. -**

MECHANICAL DIMENSIONS: In inches / mm



MO-078

PIN CONFIGURATION

| PART | PIN 1 | PIN 2 | PIN 3 | PIN 4 | PIN 5 |
|------------|-----------------|-------|------------------|----------|---------------|
| SHD501355 | V _{IN} | GND | V _{OUT} | SHUTDOWN | NO CONNECTION |
| SHD501355A | V _{IN} | GND | V _{OUT} | SHUTDOWN | REMOTE SENSE |

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.