SHD526050

SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 840, REV. C Formerly part number SHD52611

POSITIVE ADJUSTABLE 1.5 AMP REGULATOR

FEATURES:

- **ISOLATED HERMETIC PACKAGE**
- SIMILAR to INDUSTRY TYPE LM117HV
- Add Suffix "S" for S-100 Screening

MAXIMUM RATINGS

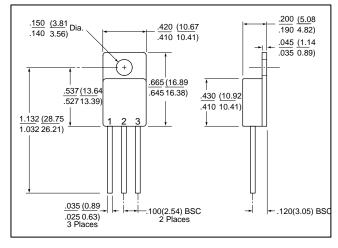
All ratings are at -55°C $\leq T_{A} \leq$ +125°C unless otherwise specified. Parameter Conditions Limit Units Typical Output Current 1.5 А I_{OUT} Input to Output Voltage Differential +60, -0.3 Vdc Storage Temperature Range _ -65 to +150 °C Soldering, 10 seconds Lead Temperature +300 °C -Power Dissipation (P_D) Internally Limited Maximum Thermal Resistance --4.2 °C/W Junction to Case (θ_{JC}) +150 Junction Temp. (T_J) -°C **Recommended Conditions** -55 to +125 Ambient Operating Temperature °C -Range (T_A)

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Min	Тур.	Limit	Units
Reference Voltage	$\begin{array}{l} 3.0V \leq (V_{IN} \text{-} V_{Out}) \leq 60V \\ 10 \text{ mA} \leq I_{OUT} \leq I_{MAX} P \leq P_{MAX} \end{array}$	1.20	1.250	1.30	V
Line Regulation	$3.0V \le (V_{IN} - V_{OUT}) \le 60V$ $I_L = 10mA$	-	0.02	0.05	%/V
Load Regulation	$10mA \le I_{OUT} \le I_{MAX}$, $T_J = +25^{\circ}C$	-	0.3	1.0	%
Adjust Pin Current	-	-	50	100	μΑ
Adjust Pin Current Change	$10mA \le I_{OUT} \le I_{MAX}$ $3.0V \le (V_{IN} - V_{OUT}) \le 60V$	-	0.2	5.0	μΑ
Minimum Load Current	$(V_{IN} - V_{OUT}) = 60V$	-	3.5	7.0	mA
Current Limit	(V _{IN} - V _{OUT}) ≤ 15V	1.5	2.2	3.5	A
Temperature Stability	$T_{MIN} \le T_J \le T_{MAX}$	-	1.0	-	%
Ripple Rejection Ratio	$V_{OUT} = 10V, f = 120Hz,$ $C_{ADJ} = 10\mu F$	66	65 80	-	dB
Thermal Regulation	20 ms pulse, $T_{1} = 25^{\circ}$	-	0.03	0.07	%/W
Long Term Stability	T_{1} = +125°C, t = 1,000hrs	-	0.3	1.0	%

• 221 West Industry Court E Deer Park, NY 11729 E (631) 586 7600, FAX (631) 242 9798 • World Wide Web - www.sensitron.com • E-mail Address - sales@sensitron.com •

SENSITRON DATASHEET 840 REVISION C



<u>TO-257</u>

PINOUT TABLE

ТҮРЕ	PIN 1	PIN 2	PIN 3
TO - 257, 1.5A Regulator	ADJUST	VOUT	V _{IN}

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.

• 221 West Industry Court □ Deer Park, NY 11729 □ (631) 586 7600, FAX (631) 242 9798 •
• World Wide Web - www.sensitron.com • E-mail Address - sales@sensitron.com •

MECHANICAL DIMENSIONS in inches & mm