

TECHNICAL DATA
DATA SHEET 843, REV. A
Formerly part number SHD52613

NEGATIVE ADJUSTABLE 1.5 AMP REGULATOR

FEATURES:

- ISOLATED HERMETIC PACKAGE
- SIMILAR to INDUSTRY TYPE LM137HV
- Add Suffix "S" for S-100 Screening

MAXIMUM RATINGS

All ratings are at $-55^{\circ}\text{C} \leq T_A \leq +125^{\circ}\text{C}$ unless otherwise specified.

Parameter	Conditions	Typical	Limit	Units
Output Current I_{OUT}	-	-	1.5	A
Input to Output Voltage Differential	-	-	50	Vdc
Storage Temperature Range	-	-	-65 to +150	$^{\circ}\text{C}$
Lead Temperature	Soldering, 10 seconds	-	+300	$^{\circ}\text{C}$
Power Dissipation (P_D)	-	-	Internally Limited	
Maximum Thermal Resistance Junction to Case (θ_{JC})	-	-	4.2	$^{\circ}\text{C}/\text{W}$
Junction Temp. (T_J)	-	-	+150	$^{\circ}\text{C}$
Ambient Operating Temperature Range (T_A)	Recommended Conditions	-	-55 to +125	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Min	Typ.	Limit	Units
Reference Voltage	$T_J = +25^{\circ}\text{C}$ $3.0\text{V} \leq V_{IN} - V_{OUT} \leq 50\text{V}$ $10\text{mA} \leq I_{OUT} \leq I_{MAX}$ $P \leq P_{MAX}$	-1.225 -1.200	-1.250 -1.250	-1.275 -1.300	V
Line Regulation	$3.0\text{V} \leq V_{IN} - V_{OUT} \leq 50\text{V}$ $I_L = 10\text{mA}$	-	0.02	0.05	%/V
Load Regulation	$10\text{mA} \leq I_{OUT} \leq I_{MAX}$ $T_J = +25^{\circ}\text{C}$	-	0.3	1.0	%
Adjust Pin Current	-	-	65	100	μA
Adjust Pin Current Change	$10\text{mA} \leq I_L \leq I_{MAX}$ $3.0\text{V} \leq V_{IN} - V_{OUT} \leq 50\text{V}$ $T_J = +25^{\circ}\text{C}$	-	2.0 4.0	5.0 6.0	μA
Minimum Load Current	$ V_{IN} - V_{OUT} = 50\text{V}$ $ V_{IN} - V_{OUT} = 10\text{V}$	-	2.5 1.2	5.0 3.0	mA
Current Limit	$ V_{IN} - V_{OUT} = 13\text{V}$ $ V_{IN} - V_{OUT} = 50\text{V}$	1.5 0.2	2.2 0.4	3.2 0.8	A
Temperature Stability	$T_{MIN} \leq T_J \leq T_{MAX}$	-	0.6	-	%
Ripple Rejection Ratio	$V_{OUT} = -10\text{V}$, $f = 120\text{Hz}$, $C_{ADJ} = 10\mu\text{F}$	66	77	-	dB
Thermal Regulation	10 ms pulse, $T_J = 25^{\circ}$	-	0.002	0.02	%/W
Long Term Stability	$T_J = +125^{\circ}\text{C}$, $t = 1,000\text{hrs}$	-	0.3	1.0	%

Technical drawing of a mechanical part, showing two views: a front view (left) and a side view (right). Dimensions are provided in inches (top) and millimeters (bottom) in parentheses.

Front View (Left):

- Overall width: $.150$ (3.81) / $.140$ (3.56)
- Overall height: 1.132 (28.75) / 1.032 (26.21)
- Top flange width: $.420$ (10.67) / $.410$ (10.41)
- Top flange thickness: $.537$ (13.64) / $.527$ (13.39)
- Top flange hole diameter: Dia. (indicated by a circle with a cross)
- Bottom flange width: $.665$ (16.89) / $.645$ (16.38)
- Bottom flange thickness: $.430$ (10.92) / $.410$ (10.41)
- Three vertical slots are shown, labeled 1, 2, and 3.
- Slot width: $.035$ (0.89) / $.025$ (0.63)
- Slot spacing: $.100$ (2.54) BSC (Between Slot Centers, 2 Places)
- Slot depth: $.035$ (0.89) / $.025$ (0.63) 3 Places

Side View (Right):

- Overall width: $.200$ (5.08) / $.190$ (4.82)
- Overall height: $.045$ (1.14) / $.035$ (0.89)
- Top flange thickness: $.045$ (1.14) / $.035$ (0.89)
- Bottom flange thickness: $.120$ (3.05) BSC (Between Slot Centers, 2 Places)

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

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