



SOLID STATE DEVICES, INC.

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SVR117AHV SERIES

1.5 Amp / 60 Volts POSITIVE ADJUSTABLE LINEAR VOLTAGE REGULATOR

Designer's Data Sheet

Part Number /Ordering Information ^{1/}
SVR117AHV M DB H

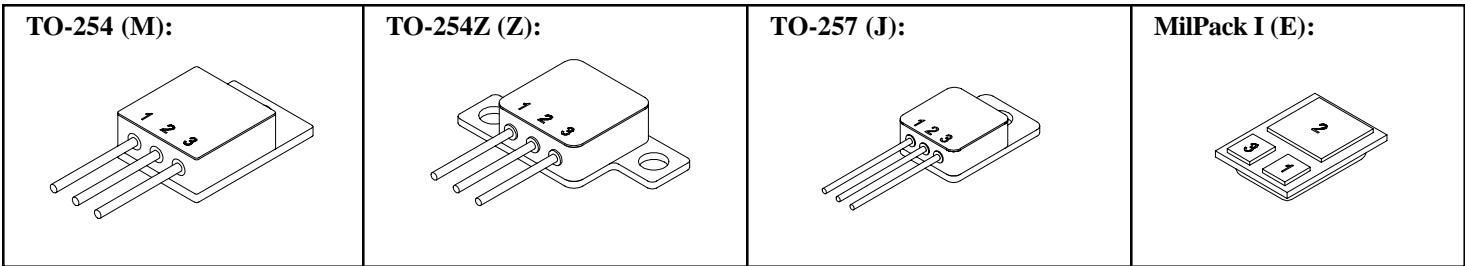
Screening ^{2/}:
 (None) = Not Screened
 H = High Rel Level
 K = Space Level

Lead Bend: ^{3/}
 (None) = Straight
 DB = Down Bend
 UB = Up Bend

Package: ^{3/}
 M = TO-254
 Z = TO-254Z
 J = TO-257
 E = MilPack I

- FEATURES:**
- Min 1.5A Output Current
 - Eutectic Die Attach
 - Superior to LH117AHVK Types
 - Hermetically Sealed Power Package
 - 150°C Operating Temperature
 - Custom Lead Forming Available
 - Class H or K (Space) Screening Available
- APPLICATION:**
- Wide Range Power Supplies
 - Constant Current Supplies
 - Voltage Programmable Supplies

MAXIMUM RATINGS	SYMBOL	VALUE	UNITS
Power Dissipation ^{4/}	P _D	62	W
Input to Output Voltage Differential	ΔV _{IN/OUT}	60	V
Maximum Current Load	I _{OUT}	1.5	A
Operating Junction Temperature	T _J	-55 TO +150	°C
Storage Temperature	T _{STG}	-65 TO +150	°C



FOR PACKAGE OUTLINE REQUEST FOLLOWING DOCUMENTS	
PACKAGE	DOCUMENT
TO-254 (M, MDB, MUB)	60-0149-503
TO-254Z (Z, ZDB, ZUB)	60-0149-501
TO-257 (J)	60-0149-504
MilPack I (E)	60-0149-467

PIN ASSIGNMENT			
PACKAGE	Adjust	Output	Input
TO-254 (M)	Pin 1	Pin 2	Pin 3
TO-254Z (Z)	Pin 1	Pin 2	Pin 3
TO-257 (J)	Pin 1	Pin 2	Pin 3
MilPack I (E)	Pin 1	Pin 2	Pin 3

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: LA0001B

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Electrical Characteristics ^{4/}	t°	SYMBOL	MIN	TYP	MAX	UNITS
Reference Voltage I _{OUT} = 10mA 10mA ≤ I _{OUT} ≤ I _{MAX} , 3V ≤ ΔV ≤ 60V, P ≤ P _{MAX}	25 *	V _{REF}	1.238 1.225	1.250 1.250	1.262 1.270	V V
Line Regulation ^{5/} (3V ≤ ΔV ≤ 60V)	25 *	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	-- --	0.005 0.01	0.010 0.02	%/V %/V
Load Regulation ^{5/} (10mA ≤ I _{OUT} ≤ I _{MAX})	V _{OUT} ≤ 5V	25	--	5	15	mV
	V _{OUT} ≥ 5V	25	--	0.1	0.3	%
	V _{OUT} ≤ 5V	*	--	20	50	mV
	V _{OUT} ≥ 5V	*	--	0.3	1.0	%
Thermal Regulation 20 msec Pulse	25		--	.002	.02	%/W
Ripple Rejection V _{OUT} = 10V, f = 120Hz	C _{ADJ} = 0μF	25	-	65	--	dB
	C _{ADJ} = 10μF	25	66	80	--	dB
Adjust Pin Current	*	I _{ADJ}	--	50	100	μA
Adjust Pin Current Change 10mA ≤ I _{OUT} ≤ I _{MAX} , 2.5V ≤ ΔV ≤ 60V	*	ΔI _{ADJ}	--	0.2	5	μA
Minimum Load Current ΔV ≤ 60V	*		--	3.5	7.0	mA
Temperature Stability -55°C ≤ T _J ≤ +150°C	*	$\frac{\Delta V_{OUT}}{\Delta T}$	--	1	2	%
Long Term Stability	125	$\frac{\Delta V_{OUT}}{\Delta V_{time}}$	--	0.3	1.0	%
RMS Output Noise (% of V_{OUT}) 10 Hz ≤ f ≤ 10 kHz	25	e _n	--	0.001	--	%
Thermal Resistance Junction to Case	Packages M, Z, and J	R _{θJC}	--	--	4.0	°C/W
	Package E		--	--	2.5	°C/W

NOTES:

- * Full Temperature Range
- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ Screening per MIL-STD-883.
- 3/ For Package Outline and Lead Bend Dimensions Consult Factory.
- 4/ Unless otherwise specified, these specifications apply: ΔV = 5V and I_{OUT} = 0.5A. Power dissipation is internally limited. However, these specifications apply for power dissipation up to 20W, I_{MAX} = 1.5A.
- 5/ Testing is done using a pulsed low duty cycle technique.