Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SVR117AHV Series

1.5 AMP
High Voltage
Positive Adjustable
Linear Voltage Regulator
60 Volts

Designer's Data Sheet

Part Number / Ordering Information [1/]

SVR117AHV __ __ __

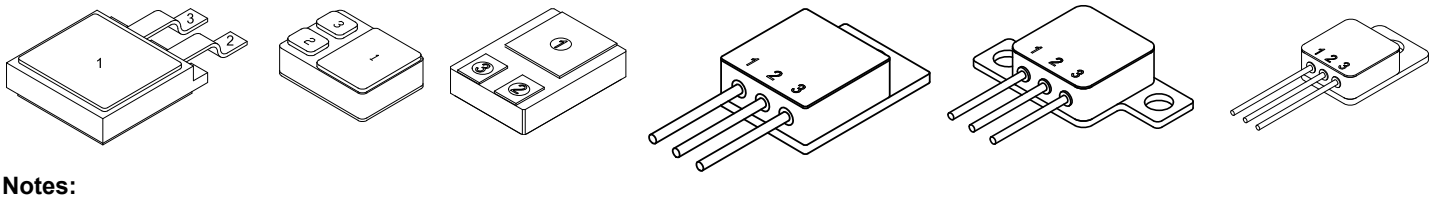
- **Screening**[2/]
  - __ = Not Screened
  - TX = TX Level
  - TXV = TXV
  - S = S Level
- **Lead Bend**
  - __ = Straight
  - DB = Down Bend
  - UB = Up Bend
- **Package**
  - M = TO-254
  - Z = TO-254Z
  - J = TO-257
  - G = Cerpack
  - S.5 = SMD.5
  - S1 = SMD1

Features:

- Guaranteed 1% output voltage tolerance
- Guaranteed 0.01% line regulation
- Guaranteed 0.3% load regulation
- Min 1.5A output current
- Eutectic die attach
- Superior to LM117 types
- Complimentary use with LM137 types
- Isolated hermetically sealed power package
- 150°C operating temperature
- Custom lead forming available
- TX, TXV, and Space level screening available

MAXIMUM RATINGS	Symbol	Value	Units
Power Dissipation[3/]	P_D	Internally Limited, 62	**W**
Input to Output Voltage Differential	$\Delta V_{IN/OUT}$	60	**V**
Maximum Current Load	I_{OUT}	1.5	**Amps**
Operating Junction Temperature	T_J	-55 to +150	**°C**
Storage Temperature	T_{STG}	-65 to +150	**°C**

Cerpack (G) **SMD.5 (S.5)** **SMD1 (S1)** **TO-254(M)** **TO-254Z(Z)** **TO-257(J)**



Notes:

1/ For ordering information, price, operating curves, and availability, contact factory.

2/ Screening based on MIL-PRF-19500. Screening flows available on request.

3/ 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.

4/ Testing is done using a pulsed low duty cycle technique.

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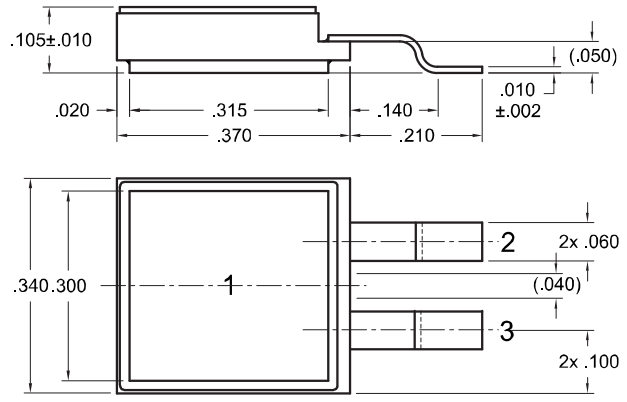
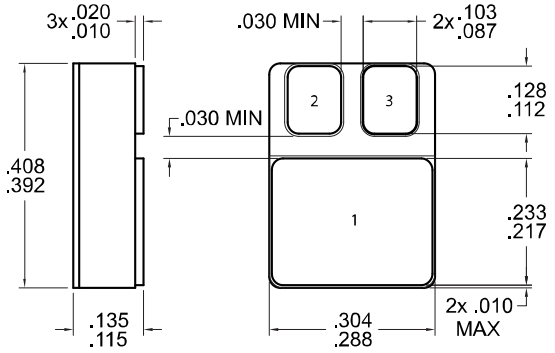
ELECTRICAL CHARACTERISTICS[3/]		t°	Symbol	Min	Typ	Max	Unit
Reference Voltage	I_{OUT}=10mA 10mA≤I_{OUT}≤I_{MAX}, 3V≤ΔV≤60V, P≤P_{MAX}	**25** *	V_{REF}	1.238 1.225	1.250 1.250	1.262 1.270	**V**
Line Regulation[4/] (3V≤ΔV≤60V)		**25** *	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	-- --	0.005 0.01	0.010 0.02	**%/V**
Load Regulation[4/] (10mA≤ I_{OUT}≤I_{MAX})	V_{OUT} ≤ 5V V_{OUT} ≥ 5V V_{OUT} ≤ 5V V_{OUT} ≥ 5V	**25** **25** * *	ΔV_{OUT}	-- -- -- --	5 0.1 20 0.3	15 0.3 50 1.0	**mV** **%** **mV** **%**
Thermal Regulation	20 msec Pulse	**25**		--	.002	.02	**%/W**
Ripple Rejection V_{OUT} = 10V, f = 120Hz	C_{ADJ} = 0µF C_{ADJ} = 10µF	**25** **25**		-- 66	65 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})	10Hz ≤ f ≤ 10kHz	**25**	e_n	--	0.001	--	**%**
Thermal Resistance Junction to Case	Packages J, M, and Z Packages G, S.5, and S1		$R_{\theta JC}$	-- --	-- --	4.0 2.5	**°C/W**

Cerpack (G)



bottom view

SMD.5 (S.5)



Notes: *Full Temperature Range

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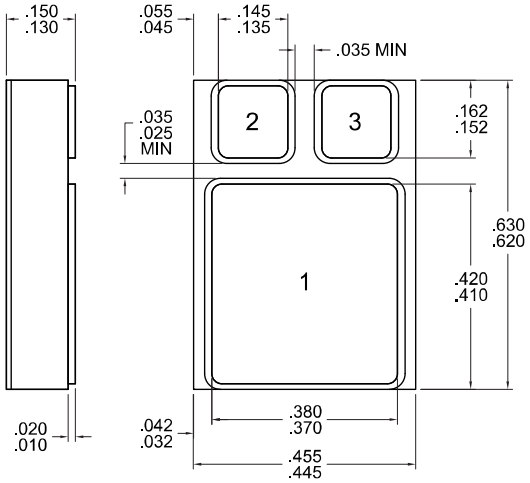
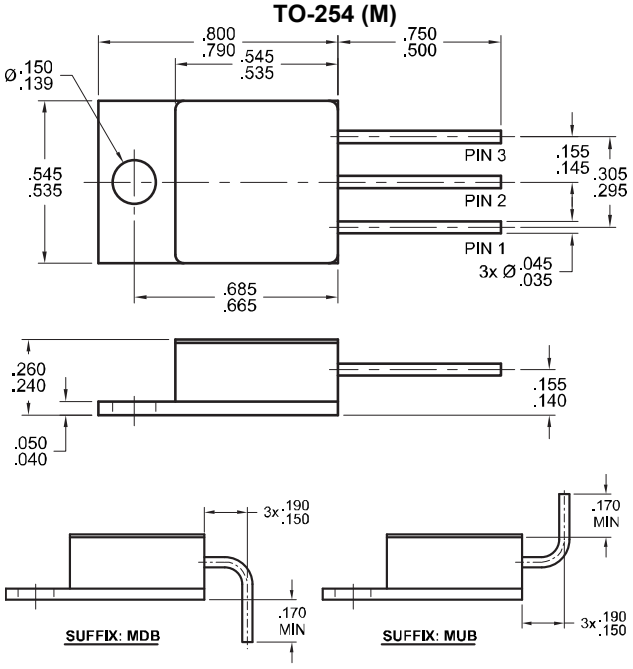
SMD1 (S1)



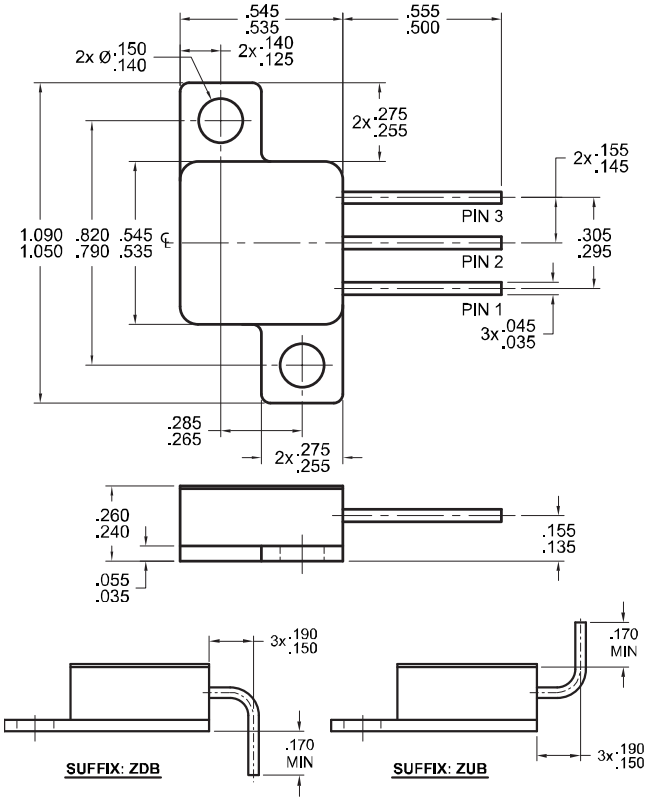
TO-254 (M)



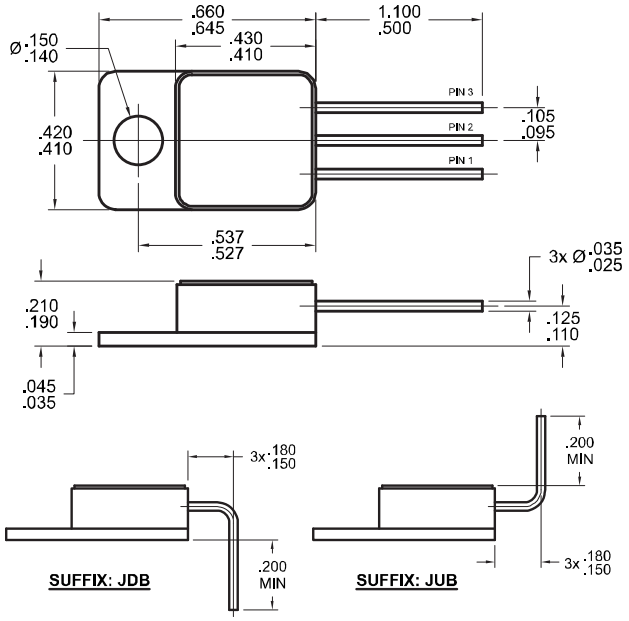
PIN ASSIGNMENT

ADJUST	OUTPUT	INPUT
Pin 2	Pin 1	Pin 3

TO-254Z (Z)



TO-257 (J)



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: LA0001C	DOC