



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

SVR117A Series

**1.5 AMP
 Positive Adjustable
 Linear Voltage Regulator
 40 Volts**

Designer's Data Sheet

Part Number / Ordering Information^{1/}

SVR117A

- = Not Screened
- TX = TX Level
- TXV = TXV Level
- S = S Level

Lead Bend

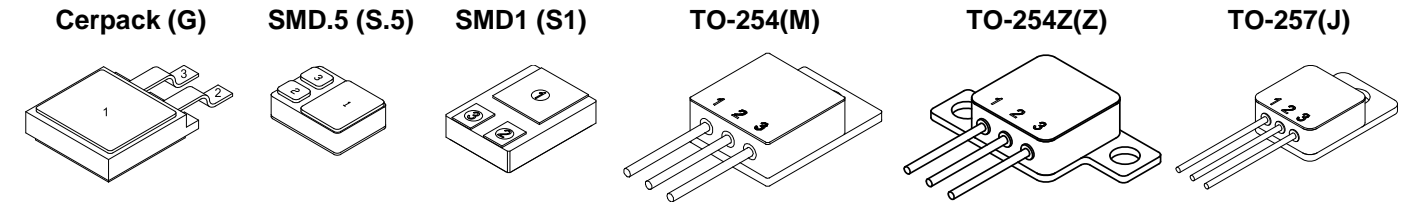
- = Straight
- DB = Down Bend
- UB = Up Bend

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 1.5 A output current
 - Eutectic die attach
 - 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	Unit
Power Dissipation ^{3/}	P_D	Internally Limited, 20	W
Input to Output Voltage Differential	$\Delta V_{IN/OUT}$	40	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



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: $\Delta V = 5\text{ V}$ and $I_{OUT} = 0.5\text{ A}$. Power dissipation is internally limited. However, these specifications apply for power dissipation up to 20 W, $I_{MAX} = 1.5\text{ A}$.

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

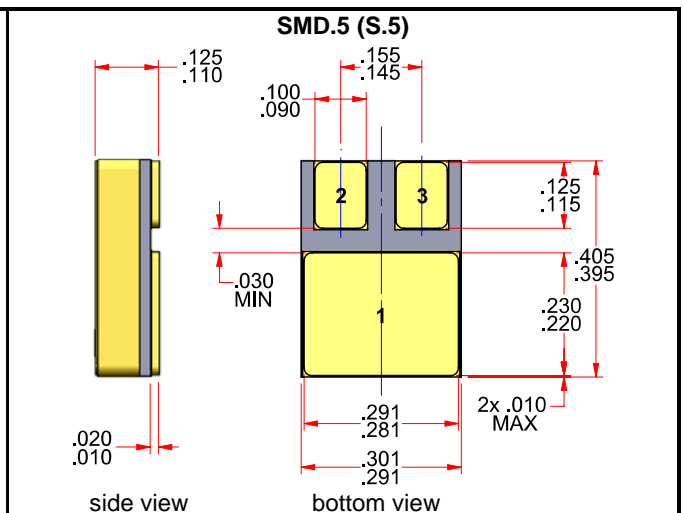
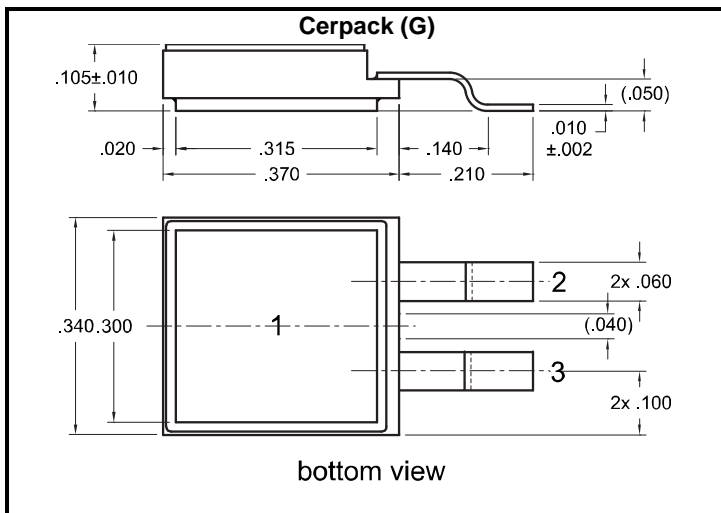


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ELECTRICAL CHARACTERISTICS ^{3/}		t°	Symbol	Min	Typ	Max	Unit
Reference Voltage	$\Delta V = 5 \text{ V}, I_{OUT} = 10 \text{ mA}$ $10 \text{ mA} \leq I_{OUT} \leq I_{MAX}, 3 \text{ V} \leq \Delta V \leq 40 \text{ V}, P \leq P_{MAX}$	25 *	V_{REF}	1.238 1.225	1.250 1.250	1.262 1.270	V
Line Regulation^{4/}	$(3 \text{ V} \leq \Delta V \leq 40 \text{ V})$	25 *	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	-- --	0.005 0.01	0.010 0.02	%/V
Load Regulation^{4/}	$(10 \text{ mA} \leq I_{OUT} \leq I_{MAX})$	25	ΔV_{OUT}	--	5	15	mV
		25		--	0.1	0.3	%
		*		--	20	50	mV
		*		--	0.3	1.0	%
Thermal Regulation	20 msec Pulse	25		--	.002	.02	%/W
Ripple Rejection	$V_{OUT} = 10 \text{ V}, f = 120 \text{ Hz}$	25		--	65	--	dB
		25		66	80	--	
Adjust Pin Current		*	I_{ADJ}	--	50	100	μA
Adjust Pin Current Change	$10 \text{ mA} \leq I_{OUT} \leq I_{MAX}, 2.5 \text{ V} \leq \Delta V \leq 40 \text{ V}$	*	ΔI_{ADJ}	--	0.2	5	μA
Minimum Load Current	$\Delta V \leq 40 \text{ V}$	*		--	3.5	5.0	mA
Temperature Stability	$-55^\circ\text{C} \leq T_J \leq +150^\circ\text{C}$	*	$\frac{\Delta V_{OUT}}{\Delta T}$	--	1	2	%
Long Term Stability		125	$\frac{\Delta V_{OUT}}{\Delta V_{time}}$	--	0.3	1.0	%
RMS Output Noise	$(\% \text{ of } V_{OUT})$	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	$^\circ\text{C/W}$
				--	--	2.5	



Notes: *Full Temperature Range

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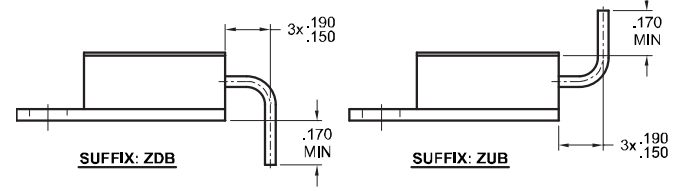
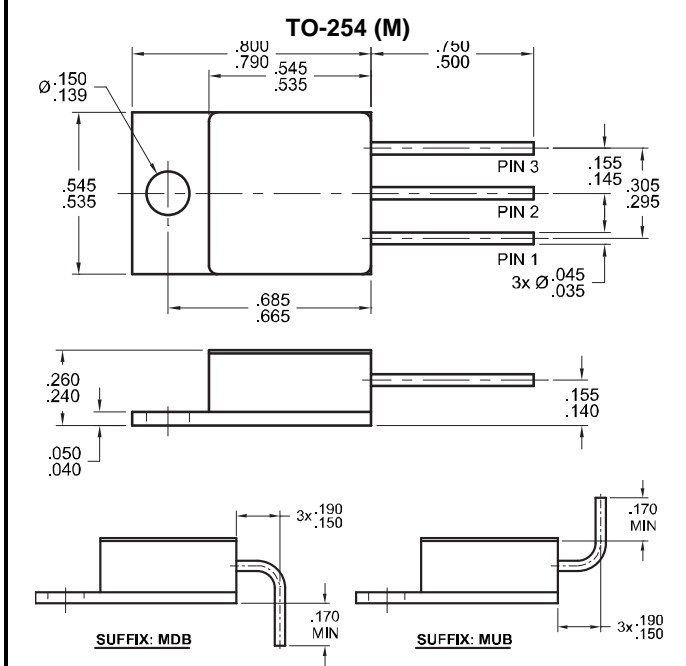
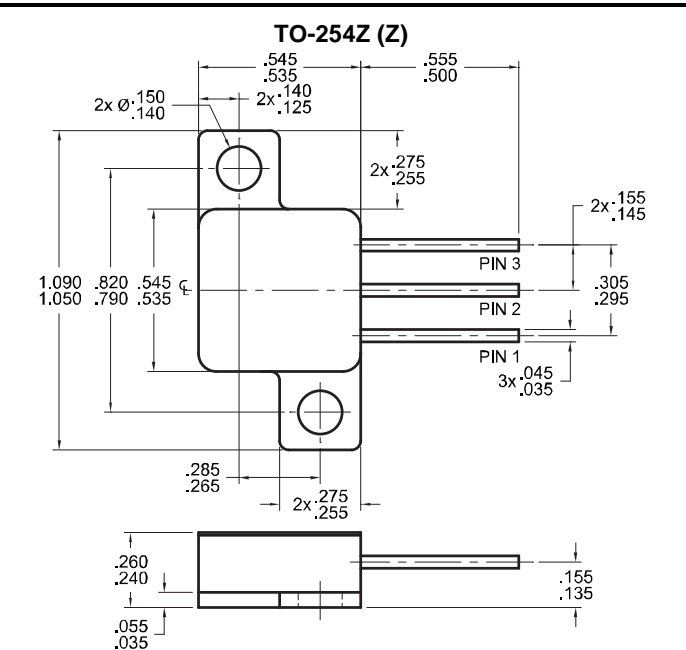
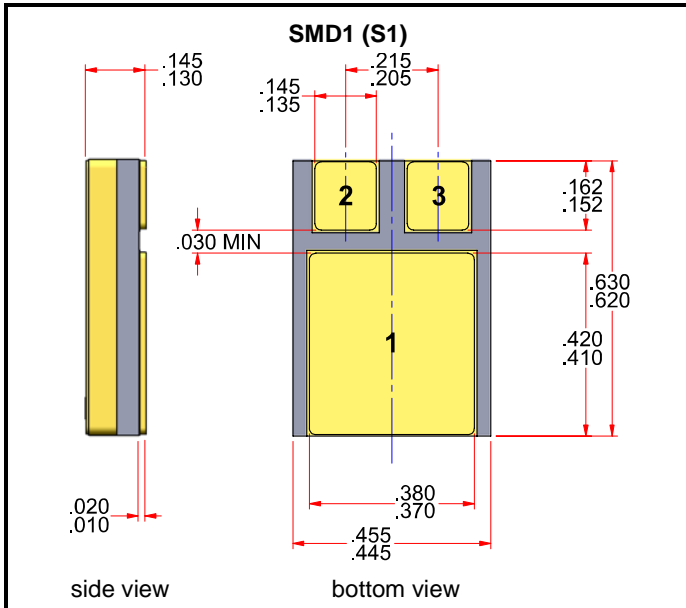
NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: LA0005F	DOCX
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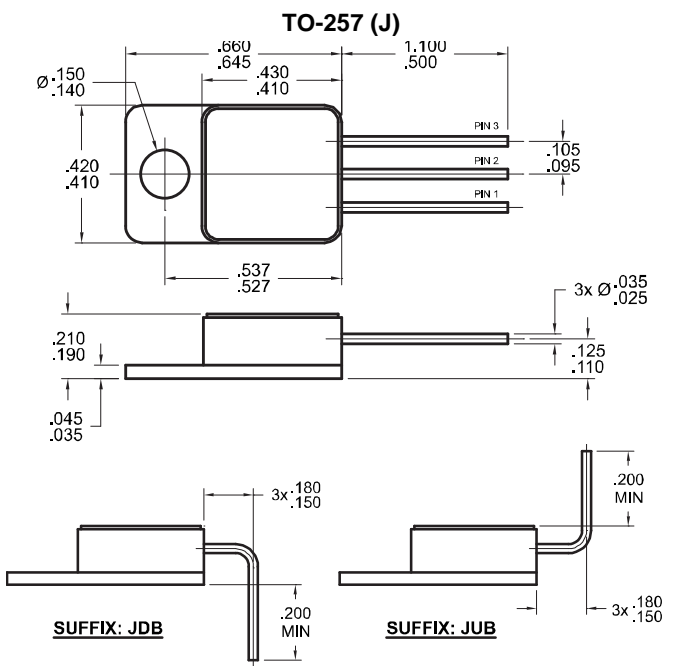
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PIN ASSIGNMENT

ADJUST	OUTPUT	INPUT
Pin 2	Pin 1	Pin 3



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DOCX