



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

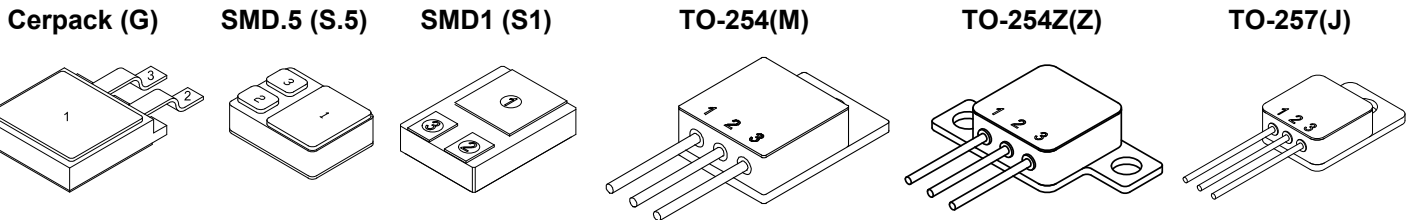
Part Number / Ordering Information^{1/}

SVR117A

- 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 G = Cerpack
 - Z = TO-254Z S.5 = SMD.5
 - J = TO-257 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
 - 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, 20	W
Input to Output Voltage Differential	$\Delta V_{IN/OUT}$	40	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



- 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: $\Delta V = 5V$ 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.

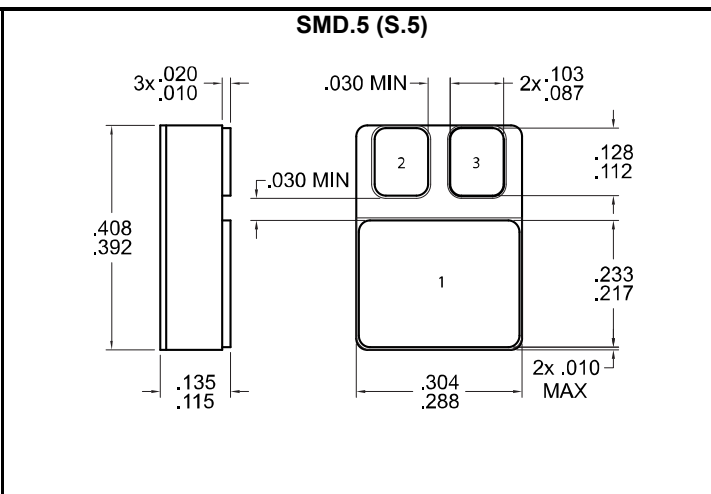
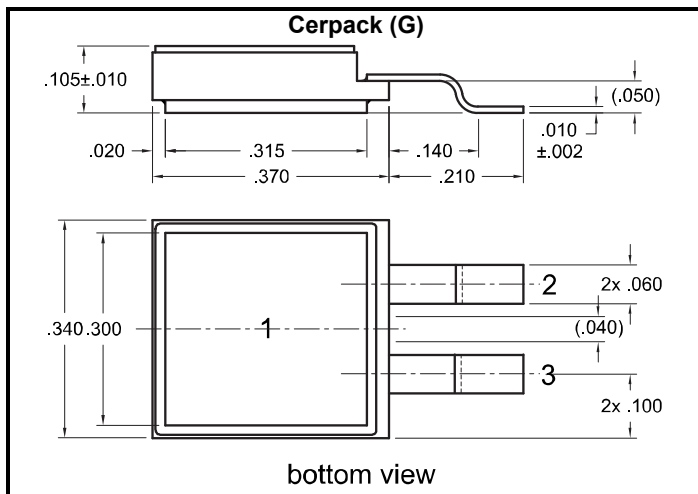


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ELECTRICAL CHARACTERISTICS ^{3/}		t°	Symbol	Min	Typ	Max	Unit
Reference Voltage	$\Delta V=5V, I_{OUT}=10mA$ $10mA \leq I_{OUT} \leq I_{MAX}, 3V \leq \Delta V \leq 40V, P \leq P_{MAX}$	25 *	V _{REF}	1.238 1.225	1.250 1.250	1.262 1.270	V
Line Regulation^{4/} (3V ≤ ΔV ≤ 40V)		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	25	ΔV _{OUT}	--	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} = 0 μF	25		--	65	--	dB
	C _{ADJ} = 10 μF	25		66	80	--	
Adjust Pin Current		*	I _{ADJ}	--	50	100	μA
Adjust Pin Current Change 10mA ≤ I _{OUT} ≤ I _{MAX} , 2.5V ≤ ΔV ≤ 40V		*	Δ I _{ADJ}	--	0.2	5	μA
Minimum Load Current	ΔV ≤ 40V	*		--	3.5	5.0	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		R _{θJC}	--	--	4.0	°C/W
	Packages G, S.5, and S1			--	--	2.5	



Notes: *Full Temperature Range

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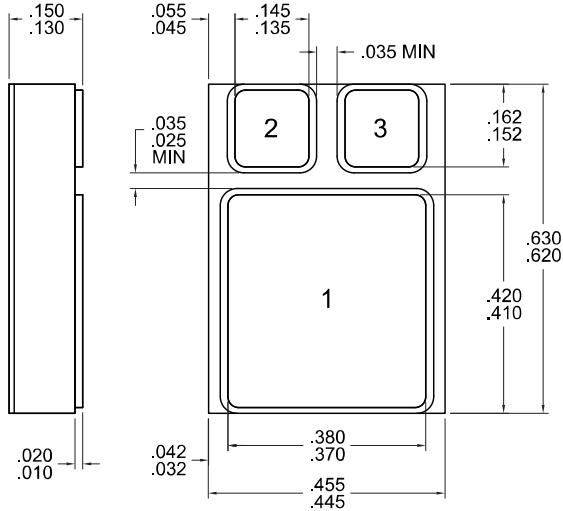


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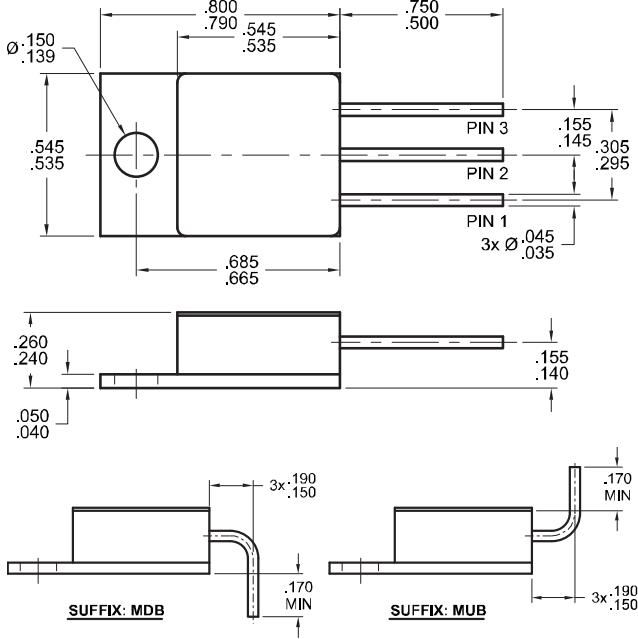
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SMD1 (S1)



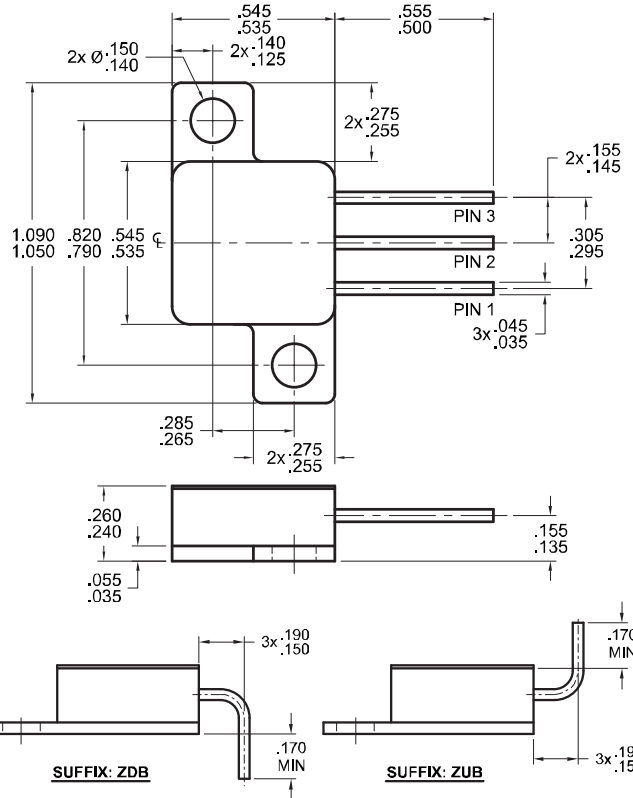
TO-254 (M)



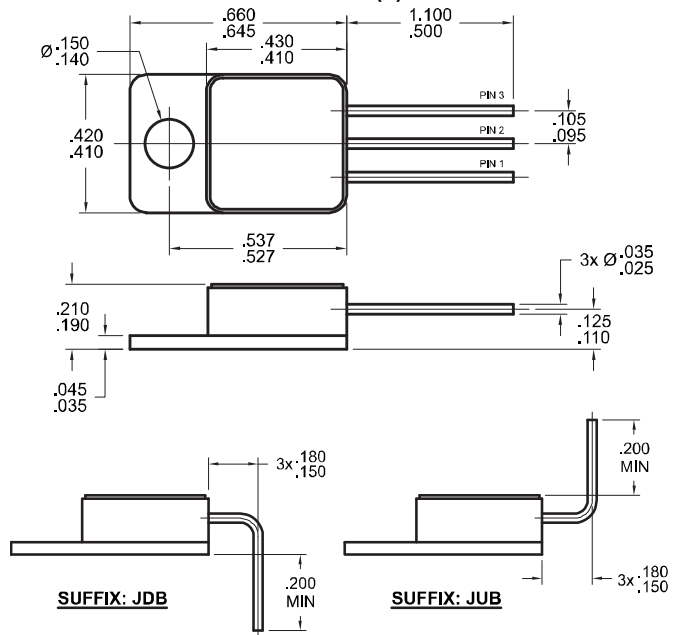
PIN ASSIGNMENT

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 #: LA005E

DOC