



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

SVR137A Series

1.5 AMP Negative Adjustable Linear Voltage Regulator 40 Volts

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SVR137A

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

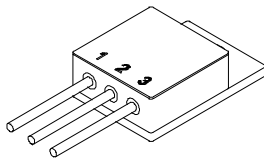
Features:

- Guaranteed 0.02% line regulation
- Guaranteed 0.5% load regulation
- Min 1.5A output current
- Eutectic die attach
- Superior to LM137 types
- Complimentary use with LM117 types
- Isolated hermetically sealed power package (M,Z,J)
- 150°C operating temperature
- Custom lead forming available (M,Z,J)
- TX, TXV, and Space Level Screening Available

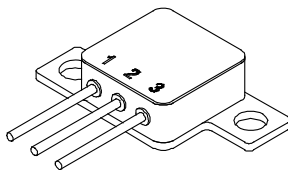
MAXIMUM RATINGS

	Symbol	Value	Units
Power Dissipation ^{3/}	P_D	Internally Limited, 20	W
Input to Output Voltage Differential	$^a V_{IN/OUT}$	40	V
Maximum Current Load	I_{FSM}	100	Amps
Operating Junction Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-65 to +150	°C

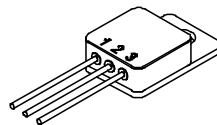
TO-254(M)



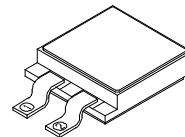
TO-254Z(Z)



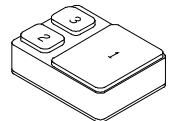
TO-257(J)



CerPack (G)



SMD.5 (S.5)



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: ^a 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.

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

DATA SHEET #: LA0011A

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ELECTRICAL CHARACTERISTICS ^{3/}	t°	Symbol	Min	Typ	Max	Unit
Reference Voltage 10mA ≤ I _{OUT} ≤ I _{MAX} , 3V ≤ ΔV ≤ 40V, P ≤ P _{MAX} ^a V = 5V, I _{OUT} = 10mA	25 *	V _{REF}	-1.225 -1.200	-1.250 -1.250	-1.275 -1.300	V
Line Regulation ^{4/} (3V ≤ ΔV ≤ 40V)	25 *	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	-- --	0.01 0.02	0.02 0.05	%/V
Load Regulation ^{4/} (10mA ≤ I _{OUT} ≤ I _{MAX})	25 *	$\frac{\Delta V_{OUT}}{\Delta I_{IN}}$	-- --	0.3 0.3	0.5 1.0	% %
Thermal Regulation 20 msec Pulse	25		--	.002	.02	%/W
Ripple Rejection V _{OUT} = -10V, f = 120Hz	25 25		-- 66	60 77	-- --	dB
Adjust Pin Current	*	I _{ADJ}	--	65	100	μA
Adjust Pin Current Change 10mA ≤ I _{OUT} ≤ I _{MAX} , 3.0V ≤ ΔV ≤ 40V	25	Δ I _{ADJ}	--	2	5	μA
Minimum Load Current ΔV ≤ 40V ΔV ≤ 10V	*		--	2.5 1.2	5.0 3.0	mA
Current Limit ΔV ≤ 15V ΔV ≤ 40V	* 25	I _L	1.5 0.24	2.2 0.4	- -	A
Temperature Stability -55°C ≤ T _J ≤ +150°C	*	$\frac{\Delta V_{OUT}}{\Delta T}$	--	0.6	--	%
Long Term Stability (1000hrs)	125	$\frac{\Delta V_{OUT}}{\Delta V_{time}}$	--	0.3	1.0	%
RMS Output Noise (% of V _{OUT})		e _n	--	0.003	--	%
Thermal Resistance Junction to Case		R _{θJC}	-- --	-- --	4.0 2.5	°C/W

Notes:

***Full Temperature Range**

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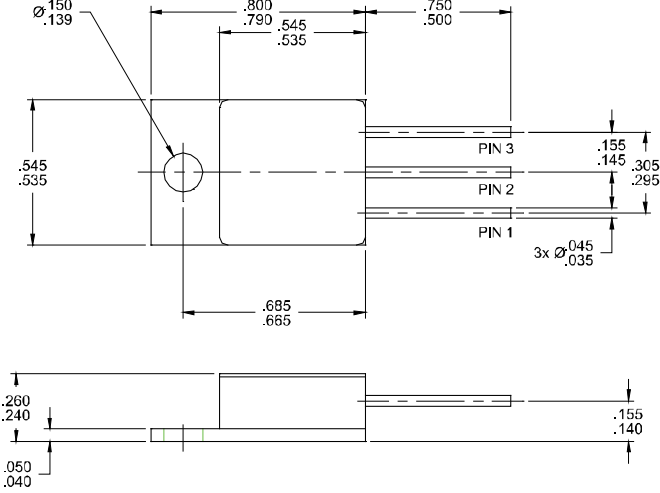


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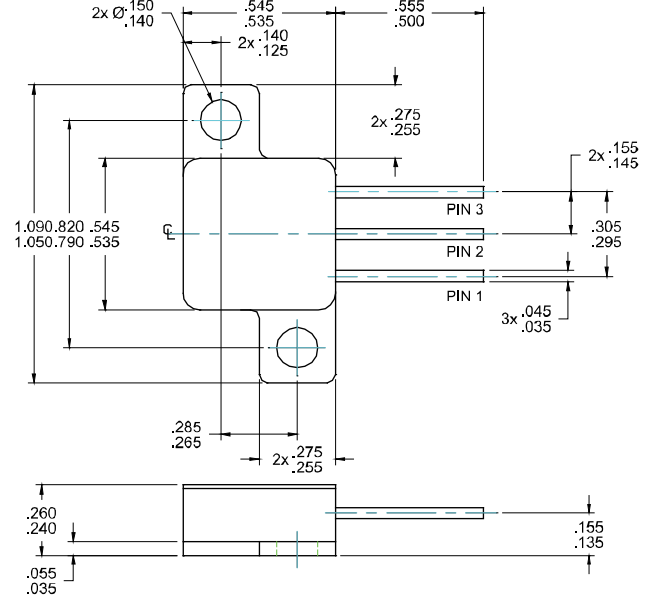
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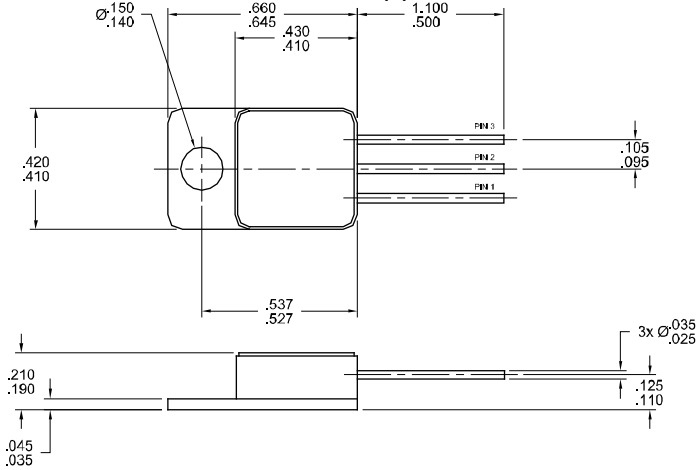
TO-254 (M)



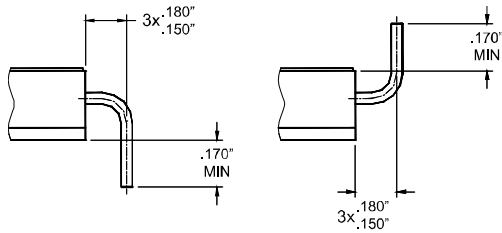
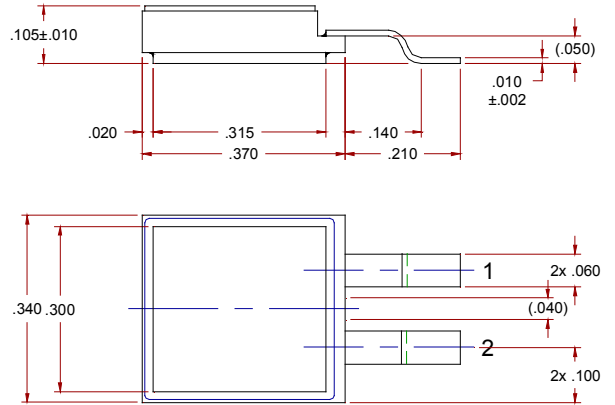
TO-254Z (Z)



TO-257 (J)



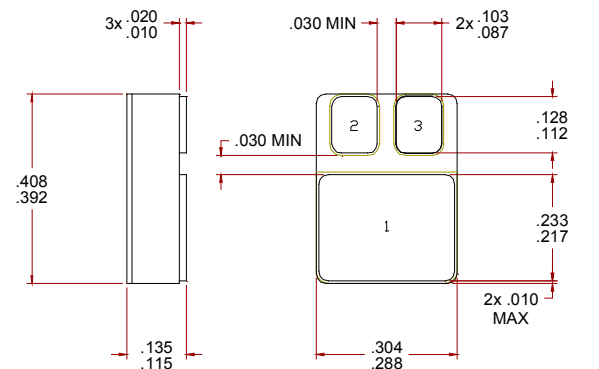
CerPack (G)



PIN ASSIGNMENT

Package	Adjust	Output	Input
TO-254 (M), TO254Z (Z), TO-257 (J), SMD.5 (S.5)	Pin 1	Pin 2	Pin 3
Cerpack (G)	Base	Pin 1	Pin 2

SMD.5 (S.5)



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