



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

Z = TO-254Z

J = TO-257

G = Cerpack

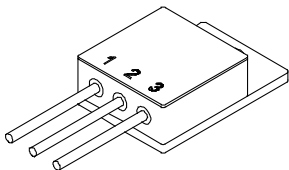
S.5 = SMD.5

Features:

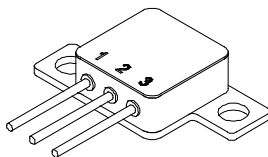
- Guaranteed 1% output voltage tolerance
- Guaranteed 0.01% line regulation
- Guaranteed 0.3% load regulation
- Min 1.5A output current
- Eutectic die attach
- Superior to LM117 types
- Complimentary use with LM137 types
- Isolated hermetically sealed power package
- 150°C operating temperature
- Custom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

MAXIMUM RATINGS	Symbol	Value	Units
Power Dissipation ^{3/}	P_D	Internally Limited, 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

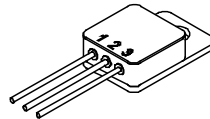
TO-254(M)



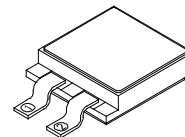
TO-254Z(Z)



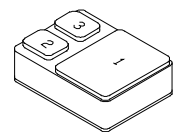
TO-257(J)



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 #: LA005D

DOC



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

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}	1.238 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})	25	$\frac{\Delta V_{OUT}}{\Delta V_{IN}}$	--	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} = -10V, f = 120Hz	25		--	65	--	dB	
	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})	25	e _n	--	0.001	--	%	
Thermal Resistance Junction to Case		R _{θJC}	Package J, M, and Z	--	--	4.0	°C/W
			Package E	--	--	2.5	

Notes:

***Full Temperature Range**

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: ^aV = 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 #: LA0005D

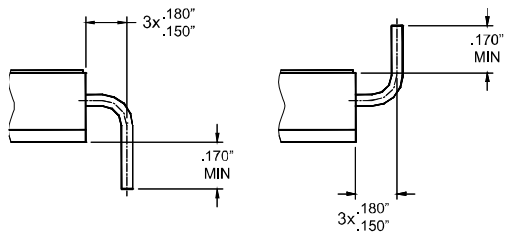
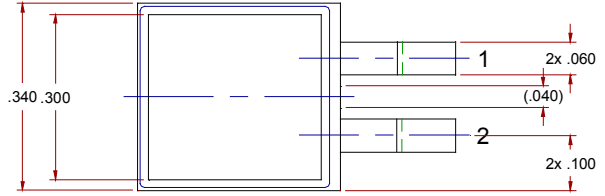
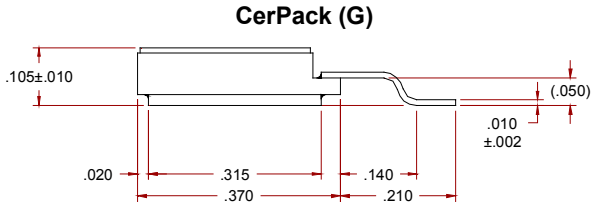
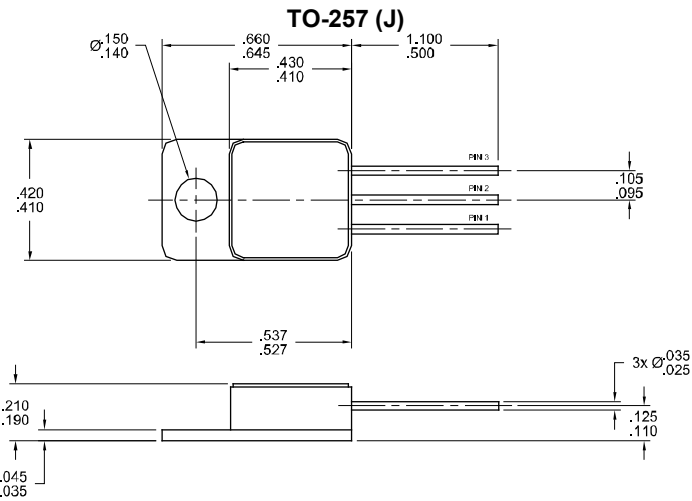
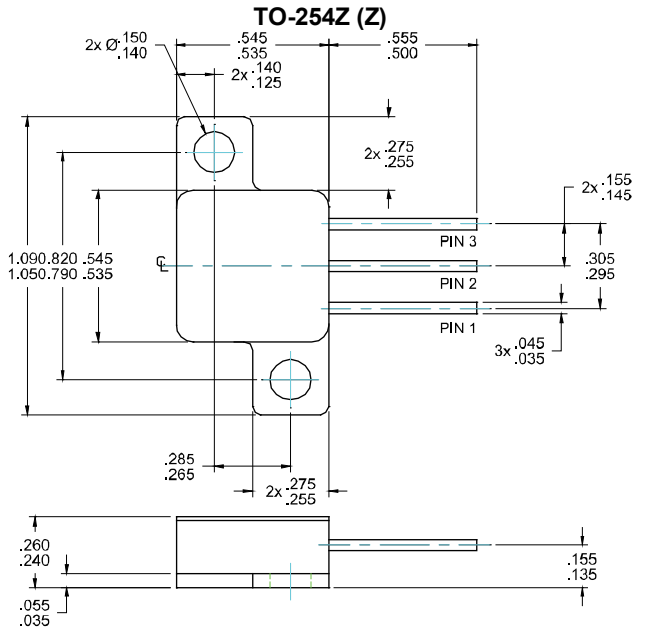
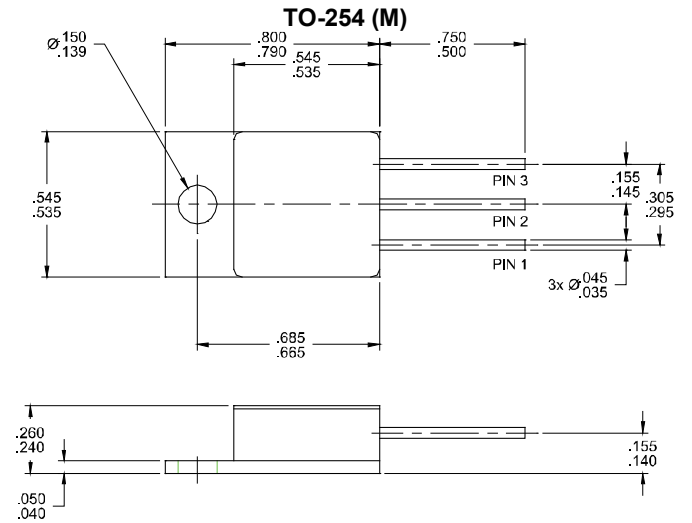
DOC



Solid State Devices, Inc.

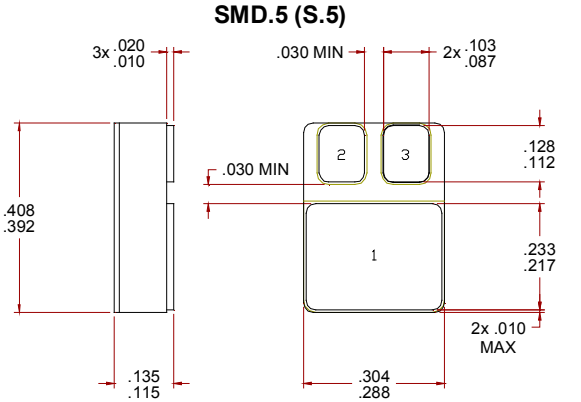
14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SVR117A Series



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



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