



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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**SVR333J
SVR333S.5**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SVR333

Screening ^{2/}

— = Not Screened
B = High Rel Level
S = Space Level

Lead Bend ^{3/}

— = Straight
DB = Down Bend
UB = Up Bend

Package Type

J = TO-257
S.5 = SMD.5

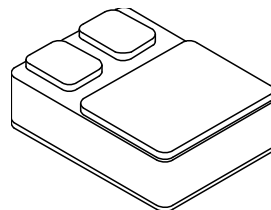
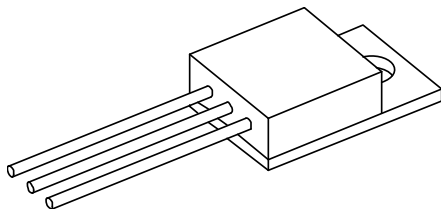
**3 Amp
NEGATIVE ADJUSTABLE
LINEAR
VOLTAGE REGULATOR**

FEATURES:

- 3A Output over -1.2 to -32V Voltage Range
- Internal Current, Power, and Thermal Limiting
- Eutectic Die Attach
- Replaces LT1033 Types
- Maximum Output Voltage Error of 1%
- Isolated Hermetically Sealed Power Package (J) or power surface mount package (S.5)
- 150°C Operating Temperature
- Custom Lead Forming Available (J)
- Ceramic Seal Package Available (JC)
- Class B or S (Space) Screening Available per Mil-M-38510

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Power Dissipation ^{4/}	P _D	Internally Limited, 30	W
Input to Output Voltage Differential	$\Delta V_{IN/OUT}$	35	V
Maximum Current	I _{MAX}	3	A
Operating Junction Temperature	T _J	-55 to +150	°C
Storage Temperature	T _{STG}	-65 to +150	°C



PIN ASSIGNMENT

FUNCTION	PIN 1	PIN 2	PIN 3
Voltage Regulator	Adjust	Input	Output

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

DATA SHEET #: LA0010B

DOC



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ELECTRICAL CHARACTERISTICS ^{3/}						
CHARACTERISTICS	t°	SYMBOL	MIN	TYP	MAX	UNIT
Reference Voltage $\Delta V = 5V$ and $I_{OUT} = 10mA$ $10mA \leq I_{OUT} \leq I_{MAX}$, $3V \leq \Delta V \leq 35V$, $P \leq P_{MAX}$	25 *	V_{REF}	-1.225 -1.213	-1.250 -1.250	-1.275 -1.287	V V
Line Regulation ^{5/} $3V \leq \Delta V \leq 35V$	25 *	$\Delta V_{OUT} / \Delta V_{IN}$	-- --	0.01 0.02	0.04 0.07	%/V %/V
Load Regulation ^{5/} ($10mA \leq I_{OUT} \leq I_{MAX}$) $V_{OUT} \leq 5V$ $V_{OUT} \leq 5V$ $V_{OUT} \leq 5V$ $V_{OUT} \leq 5V$	25 25 * *	$\Delta V_{OUT} / \Delta V_{IN}$	-- -- -- --	0.2 0.4	1.0 1.5	% %
Thermal Regulation 10 msec Pulse	25		--	.002	.02	%/W
Ripple Rejection $V_{OUT} = -10V$, $f=120Hz$ $C_{ADJ} = 0$ $C_{ADJ} = 10\mu F$	25 25		56 70	66 80	-- --	dB dB
Adjust Pin Current	*	I_{ADJ}	--	65	100	μA
Adjust Pin Current Change $10mA \leq I_{OUT} \leq I_{MAX}$ $3V \leq \Delta V \leq 35V$	* *	ΔI_{ADJ}	-- --	2.5	8	μA
Minimum Load Current $\Delta V \leq 35V$ $\Delta V \leq 10V$	25 25		-- --	2.5 1.5	10.0 5.0	mA mA
Current Limit $\Delta V \leq 10V_{DC}$ ^{5/} $\Delta V = 30V$	25 25	I_{SC}	3 0.2	3.9 0.4	6	A A
Temperature Stability $T_{MIN} \leq T \leq T_{MAX}$	*	$\Delta V_{OUT} / \Delta T$	--	0.5		%
Long Term Stability $T = 1000$ Hours	125	$\Delta V_{OUT} / \Delta V_{time}$	--	0.2		%
RMS Output Noise (% of V_{OUT}) $10Hz \leq f \leq 10kHz$	25	e_n	--	0.003	--	%
Thermal Resistance Junction to Case		$R_{\theta JC}$	--		5	°C/W

NOTES:

* Full Temperature Range

1/ For Ordering Information, Price, and Availability- Contact Factory.

2/ Screening per MIL-STD-883.

3/ For Lead Bend Options Request Document #DSB-001 (Available for Download @ ssdi-power.com).

4/ Unless otherwise specified, these specifications apply: $\Delta V = 5V$ and $I_{OUT} = 5mA$. Power dissipations is internally limited. However, these specifications apply for power dissipation up to 30W, $I_{MAX} = 3A$.

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

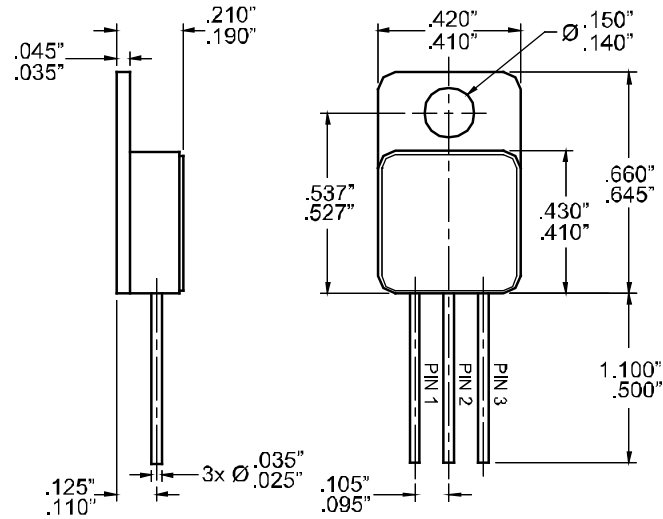


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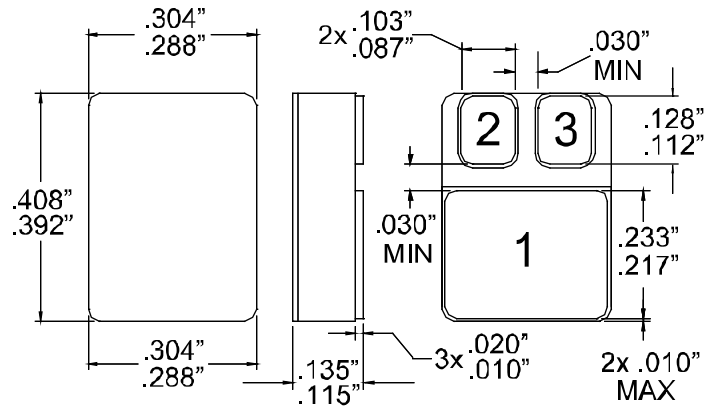
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SVR333S.5**

Outline: TO-257J



Outline: SMD .5



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