



PRELIMINARY

# SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

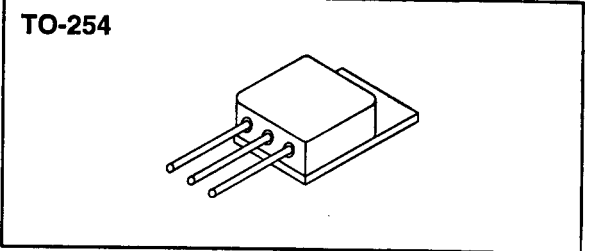
## SVR137KM

### Designer's Data Sheet

- FEATURES:**
- Eutectic Die Attach, Hermetic Package
  - Superior to LM137 types
  - Complimentary use with LM117 types
  - Fast Switching

**-1.5 AMPS  
-40 VOLTS  
NEGATIVE ADJUSTABLE  
LINEAR VOLTAGE REGULATOR**

- APPLICATIONS**
- Wide Range Power Supplies
  - Constant Current Supplies
  - Voltage Programmable Supplies

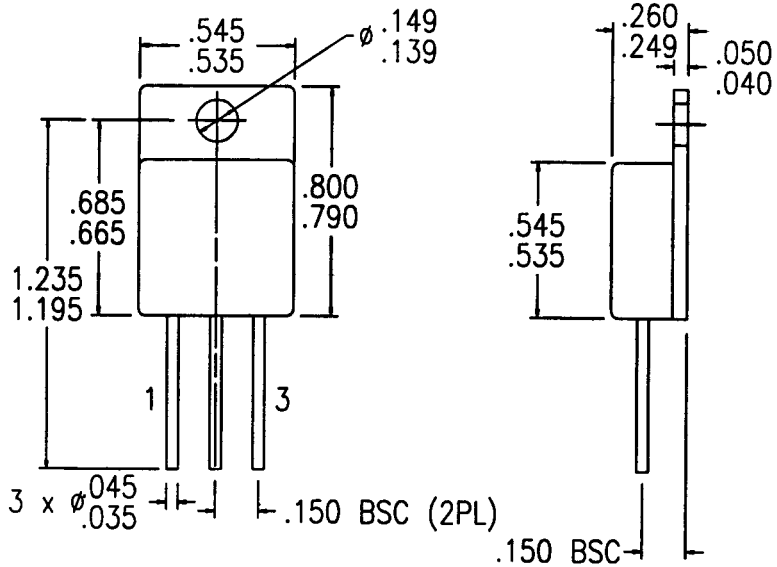


### MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Current Load	I <sub>OUT</sub>	1.5	Amps
Input to Output Differential	V <sub>in</sub> -V <sub>out</sub>	40	Volts
Power Dissipation (Internally Limited)	P <sub>D</sub>	20	Watts
Storage Temperature Range	T <sub>stg</sub>	-65 to +150	°C
Operation Junction Temperature	T <sub>j</sub>	-55 to +150	°C
Thermal Resistance Junction to Case	R <sub>θjc</sub>	4.5	°C/Watts

### PACKAGE OUTLINE: TO-254

**PIN OUT:**  
 PIN 1: ADJ  
 PIN 2: IN  
 PIN 3: OUT



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

DATA SHEET #: LA0007 A

MED

# SVR137KM



**SOLID STATE DEVICES, INC**

14849 Firestone Boulevard · La Mirada, CA 90638  
 Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**ELECTRICAL CHARACTERISTICS @ T<sub>J</sub>=25° C (Unless Otherwise Specified)**

RATING	SYMBOL	MIN	TYP	MAX	UNIT
<b>Reference Voltage</b> I <sub>OUT</sub> = 10mA, T <sub>A</sub> =25° C 3.7 V ≤ (V <sub>in</sub> - V <sub>out</sub> ) ≤ 40 V, P ≤ P <sub>max</sub> 10mA ≤ I <sub>OUT</sub> ≤ I <sub>max</sub>	VREF	1.238 1.22	1.25 1.25	1.262 1.28	V
<b>Line Regulation</b> 3.7 V ≤ (V <sub>in</sub> - V <sub>out</sub> ) ≤ 40 V, I <sub>L</sub> =10mA T <sub>A</sub> =25° C T <sub>A</sub> =T <sub>min</sub> to T <sub>max</sub>	ΔV <sub>out</sub> ΔV <sub>in</sub>		0.005 0.01	0.01 0.02	%/V
<b>Load Regulation</b> 10mA < I <sub>out</sub> < I <sub>max</sub> V <sub>out</sub> < 5V, T <sub>A</sub> =25° C V <sub>out</sub> > 5V, T <sub>A</sub> =25° C V <sub>out</sub> < 5V V <sub>out</sub> > 5V	ΔV <sub>out</sub> ΔI <sub>out</sub>		5 0.1 20 0.2	25 0.5 50 1	mV % mV %
<b>Thermal Regulation</b> T <sub>A</sub> =25° C, 20ms pulse			.002	0.02	%/W
<b>Ripple Rejection</b> V <sub>out</sub> = 10V, f=120 MHz C <sub>adj</sub> = 1μF, T <sub>A</sub> =25° C C <sub>adj</sub> = 10μF		60 70	66 80		dB
<b>Adjust Pin Current</b>	IADJ		65	100	μA
<b>Adjust Pin Current Change</b> 10mA < I <sub>out</sub> < I <sub>max</sub> , 3.2V < (V <sub>in</sub> -V <sub>out</sub> ) < 40 V	ΔIADJ		1	5	μA
<b>Minimum Load Current</b> (V <sub>in</sub> -V <sub>out</sub> ) = 40 V	I <sub>min</sub>		2.5	5	mA
<b>Temperature Stability</b>	ΔV <sub>out</sub> ΔTemp		0.6	1.5	%
<b>Long Term Stability</b> T <sub>A</sub> =125° C	ΔV <sub>out</sub> ΔV <sub>time</sub>		0.3	1	%
<b>RMS Output Noise (% of V<sub>out</sub>)</b> T <sub>A</sub> =25° C, 10Hz < f < 10KHz	en		0.003		%

For thermal derating curves and other characteristic curves please contact SSDI Marketing Department.