



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

Designer's Data Sheet

Part Number /Ordering Information ^{1/}

SVR1009 -4 H

Screening ^{2/}: _ = Not Screened

H = High Rel Level

K = Space Level

Package: ^{3/} -4 = LCC 4

/46 = TO-46

/18 = TO-18

SVR1009 SERIES

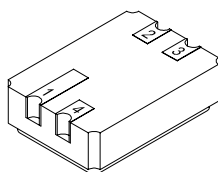
2.5 Volts PRECISION SHUNT REGULATOR DIODE

FEATURES:

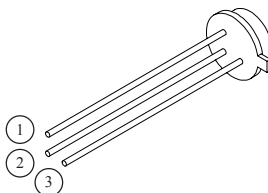
- Replacement for LT1009 and LM136 Types
- Eutectic Die Attach
- Maximum Initial Tolerance: 0.2%
- Guaranteed Temperature Stability
- Maximum 0.6Ω Dynamic Impedance
- Wide Operating Current Range
- Hermetically Sealed Package
- 125°C Operating Temperature
- Class H or K (Space) Screening Available

MAXIMUM RATINGS ^{4/}	SYMBOL	VALUE	UNITS
Reverse Current	I _R	20	mA
Forward Current	I _F	10	mA
Long Term Stability (I _R = 1mA, T _A = 25 ± 0.1°C)	ΔV _Z /V _Z /Δ Time	20	ppm/khr
Operating Temperature	T _{OP}	-55 to +125	°C
Storage Temperature	T _{STG}	-65 to +150	°C

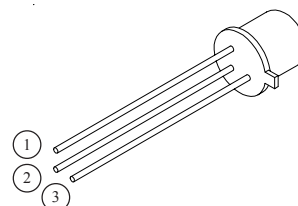
LCC 4 (-4):



TO-46 (/46):



TO-18 (/18):



FOR PACKAGE OUTLINE REQUEST FOLLOWING DOCUMENTS

PACKAGE	DOCUMENT
LCC 4 (-4)	60-0149-323
TO-46 (/46)	60-0149-046
TO-18 (/18)	60-0149-018

PIN ASSIGNMENT

PACKAGE	Anode	Cathode	Adjust
LCC 4 (-4)	Pins 1, 2	Pin 4	Pin 3
TO-46 (/46)	Pin 1	Pin 2	Pin 3
TO-18 (/18)	Pin 1	Pin 2	Pin 3

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

DATA SHEET #: SVR006B

SVR1009 SERIES



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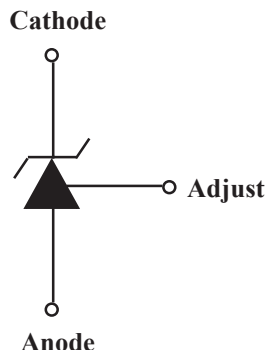
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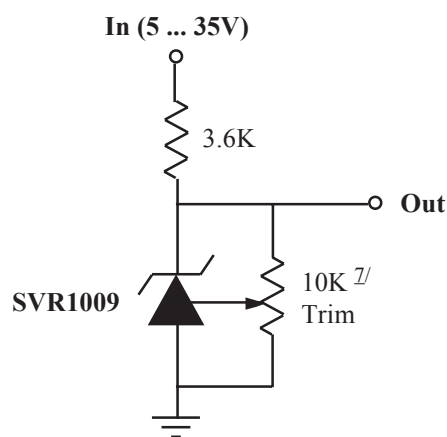
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Electrical Characteristics	t ^o	SYMBOL	MIN	TYP	MAX	UNITS
Reverse Breakdown Voltage (I _R = 1mA)	25	V _Z	2.495	2.500	2.505	V
Reverse Breakdown Change with Current (400μA ≤ I _R ≤ 10mA)	25 *	$\frac{\Delta V_Z}{\Delta I_R}$	-- --	2.6 3.0	10 12	mV
Reverse Dynamic Impedance (I _R = 1mA)	25 *	r _Z	-- --	0.2 0.4	1.0 1.4	Ω
Change in Reference Voltage with Temperature (T _{MIN} ≤ T _A ≤ T _{MAX})	*		--	1.8	4.0	mV
Average Temperature Coefficient ^{5/} , ^{6/} (0°C ≤ T _A ≤ 70°C)		$\frac{\Delta V_Z / V_Z}{\Delta \text{Temp}}$	--	15	25	ppm/°C

SCHEMATIC:



TYPICAL APPLICATION:



NOTES:

- * Full Temperature Range
- ^{1/} For Ordering Information, Price, and Availability Contact Factory.
- ^{2/} Screening per MIL-PRF-19500.
- ^{3/} For Package Outlines and Lead Bend Options Contact Factory
- ^{4/} Absolute Maximum Ratings are those values beyond which the life of a device may be impaired.
- ^{5/} Guaranteed by Design.
- ^{6/} Average Temperature Coefficient is defined as the proportional voltage change divided by the specified temperature change.
- ^{7/} ±5% Trim Range. Resistance Does not Affect Temperature Coefficient

$$\frac{\Delta V_Z / V_Z}{\Delta \text{Temp}}$$