



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

**SVR1009
SERIES**

**2.5 Volts
PRECISION SHUNT
REGULATOR DIODE**

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

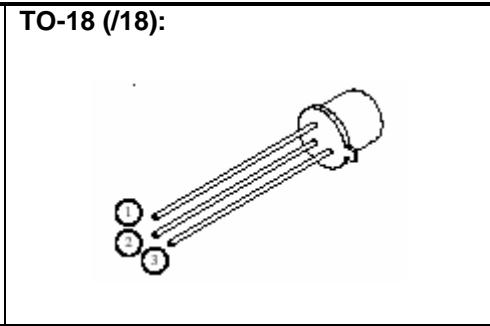
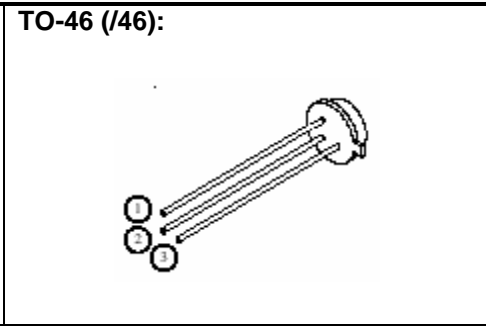
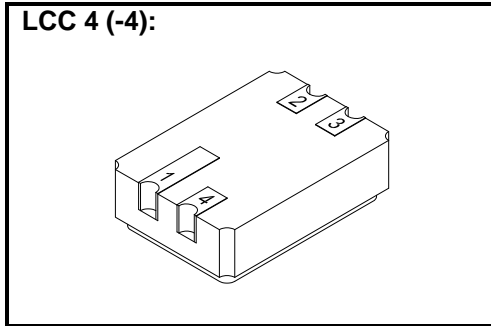
SVR1009

Screening ^{2/} ___ = Not Screened
 H = High Rel Level
 K = Space Level

Package ^{3/} -4 = LCC 4
 /46 = TO-46
 /18 = TO-18

- Features:**
- Replacement for LT1009 and LM316 Types
 - Eutectic Die Attach
 - Maximum Initial Tolerance: 1%
 - Guaranteed Temperature Stability
 - Typ. 0.2Ω Dynamic Impedance
 - Wide Operating Current Range
 - Hermetically Sealed Package
 - 125°C Operating Temperature
 - Class H or K (Space) Screening Available

Maximum Ratings	Symbol	Value	Units
Reverse Current	I_R	15	mA
Forward Current	I_F	10	mA
Long Term Stability ($I_R = 1 \text{ mA}, T_A = 25 \pm 0.1^\circ\text{C}$)	$\Delta V_Z / V_Z / \Delta \text{Time}$	20	ppm/khr
Operating Temperature	T_{OP}	-55 to +150	°C
Storage Temperature	T_{STG}	-65 to +150	°C



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 #: SVR006C

DOC

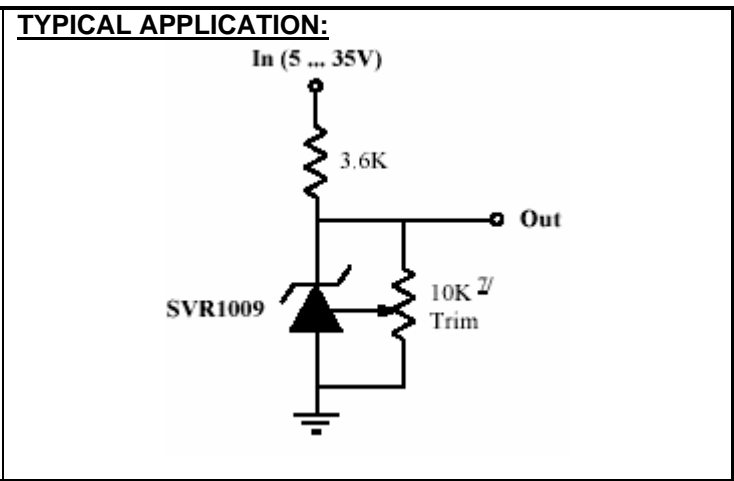
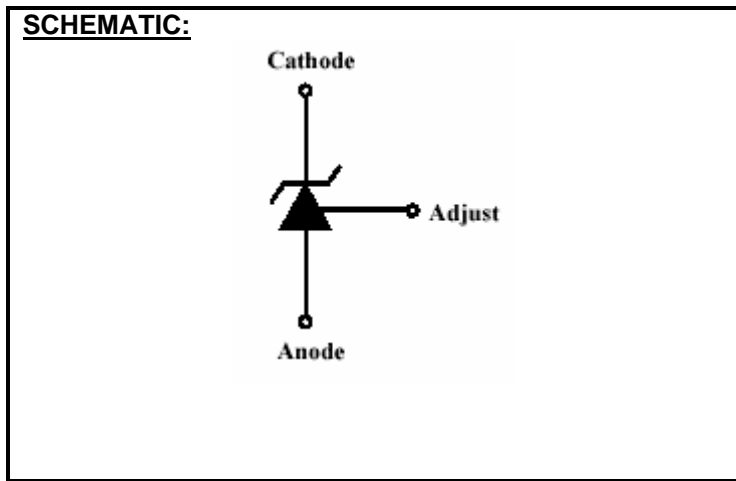


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Electrical Characteristics	t °	Symbol	Min	Typ	Max	Units
Reverse Breakdown Voltage (I _R = 1 mA)	25	V _Z	2.465	2.500	2.515	Volts
Reverse Breakdown Change with Current (400 μA < I _R < 10 mA)	25 *	$\frac{\Delta V_Z}{\Delta I_R}$	—	2.6 3.0	10 12	mV
Reverse Dynamic Impedance ^{5/} (I _R = 1 mA)	25 *	r _Z	—	0.2 0.4	1.0 1.4	Ω
Change in Reference Voltage with Temperature (T _{MIN} ≤ T _A ≤ T _{MAX})	*	—	—	12	20	mV
Average Temperature Coefficient ^{5/, 6/} (0°C ≤ T _A ≤ 70°C)		$\frac{\Delta V_Z/V_Z}{\text{Temp}}$	—	15	25	ppm/°C



NOTES:

Full Temperature Range

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

2/ Screening per MIL-PRF-19500.

3/ For Package Outlines and Led 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 Defines as the Proportional Voltage Change Divided by the Specified Temperature Change.

7/ ± 5% Trim Range. Resistance Does Not Affect Temperature Coefficient.