



# SOLID STATE DEVICES, INC.

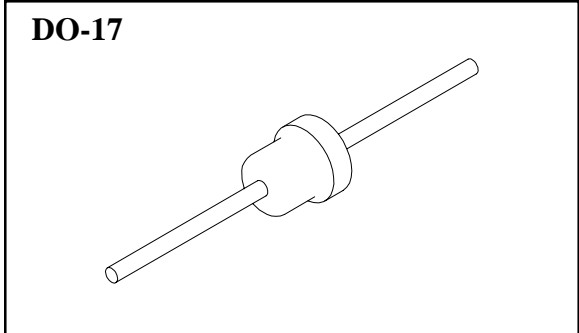
14830 Valley View Blvd \* La Mirada, Ca 90638  
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**1N4394 and 1N4394A  
1N4395 and 1N4395A**

## Designer's Data Sheet

**SILICON  
TUNNEL  
DIODE**

- FEATURES:**
- Hermetically Sealed Axial Lead Package
  - Weldable Gold Plated Kovar Leads
  - Temperature Stability, Uniformity, and
  - Available in 5% ('A') or 10% Tolerance on Peak Point Current
  - Silicon Tunnel Diode Construction
  - Meets Requirements of MIL-PRF-19500
  - TX, TXV, and Space Level Screening Available
  - Surface Mount Devices Available



Maximum Ratings		SYMBOL	VALUE	UNITS
Maximum Forward Current (T <sub>C</sub> = 25 °C) Derate Above T <sub>C</sub> = 25 °C	1N4394, A	I <sub>F</sub>	0.5	mA
	1N4395, A		1.0	
	1N4394, A		2.5	μA/°C
	1N4395, A		5.0	
Maximum Reverse Current	1N4394, A 1N4395, A	I <sub>R</sub>	1.0 2.0	mA
Storage Temperature		T <sub>STG</sub>	-65 TO +200	°C
Maximum Soldering Temperature L = 1/4", t = 10sec		T <sub>SLDR</sub>	250	°C

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

**DATA SHEET # : RC0067A**

**1N4394 and 1N4394A  
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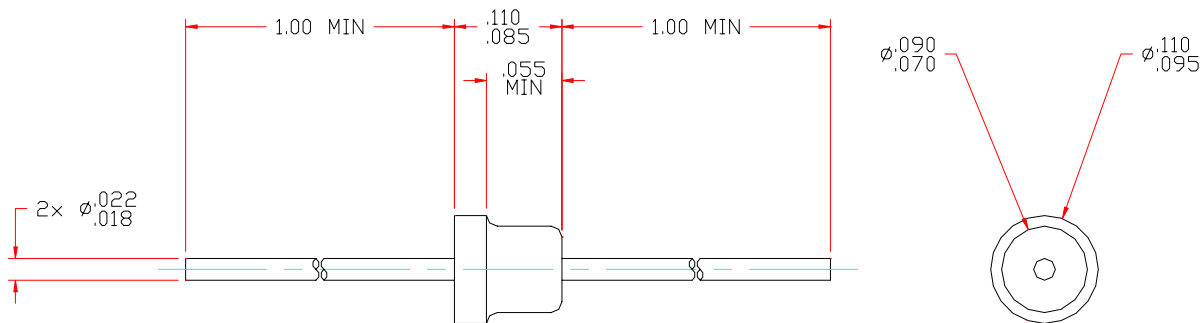
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**ELECTRICAL CHARACTERISTICS**

Part Number	Peak Point Current		Peak Point Voltage	Valley Point Current	Valley Point Voltage	Forward Voltage		Forward Current	Total Series Resistance	Valley Point Terminal Capacitance
Symbol	<b>I<sub>P</sub></b>		<b>V<sub>P</sub></b>	<b>I<sub>V</sub></b>	<b>V<sub>V</sub></b>	<b>V<sub>F</sub> @ I<sub>F</sub></b>		<b>I<sub>F</sub></b>	<b>R<sub>S</sub></b>	<b>C</b>
Units	<b>mA</b>		<b>mV</b>	<b>mA</b>	<b>mV</b>	<b>mV</b>		<b>mA</b>	<b>Ohms</b>	<b>pF</b>
Conditions	MIN	MAX	MAX	MAX	MAX	MIN	MAX	MAX	MAX	MAX
<b>1N4394A</b>	.209	.231	80	65	480	680	1000	.231	7.0	90
<b>1N4394</b>	.200	.240	80	80	480	660	1000	.240	7.0	90
<b>1N4395A</b>	.45	.49	80	145	490	690	1000	.49	3.0	100
<b>1N4395</b>	.42	.52	80	170	490	670	1000	.52	3.0	100

**PACKAGE OUTLINE:  
DO-17**



**NOTES:**

1. Consult manufacturing for operating curves.