

# SILICON HYPERABRUPT TUNING VARACTOR

**DESCRIPTION:**

The **ASI AHV1001A** is a Silicon Hyperabrupt Tuning Varactor in a **SOT-23** package.

**MAXIMUM RATINGS**

<b>I<sub>R</sub></b>	100 nA @ V <sub>R</sub> = 20 V
<b>P<sub>DISS</sub></b>	250 mW @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +150 °C
<b>T<sub>SGT</sub></b>	-65 °C to +150 °C

**PACKAGE STYLE SOT-23**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
<b>A</b>	2.80	3.04	0.1102	0.1197
<b>B</b>	1.20	1.40	0.0472	0.0551
<b>C</b>	0.89	1.11	0.0350	0.0440
<b>D</b>	0.37	0.50	0.0150	0.0200
<b>G</b>	1.78	2.04	0.0701	0.0807
<b>H</b>	0.013	0.100	0.0005	0.0040
<b>J</b>	0.385	0.177	0.0034	0.0070
<b>K</b>	0.45	0.60	0.0180	0.0236
<b>L</b>	0.89	1.02	0.0350	0.0401
<b>S</b>	2.10	2.50	0.0830	0.0984
<b>V</b>	0.45	0.60	0.0177	0.0236

Lead Configuration:  
1 = Anode 2 = N.C.  
3 = Cathode

**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>C<sub>T</sub></b>	V <sub>R</sub> = 4.0 V      f = 1.0 MHz	4.3		5.3	pF
<b>C<sub>T</sub></b>	V <sub>R</sub> = 20 V      f = 1.0 MHz	0.8		1.2	pF
<b>T<sub>R</sub></b>	C <sub>T4V</sub> /C <sub>T20V</sub>	4.0			
<b>Q</b>	V <sub>R</sub> = 4.0 V      f = 50 MHz	400			
<b>f</b>	UPPER FREQUENCY LIMIT			2000	MHz