

# SILICON VARACTOR DIODE

**DESCRIPTION:**

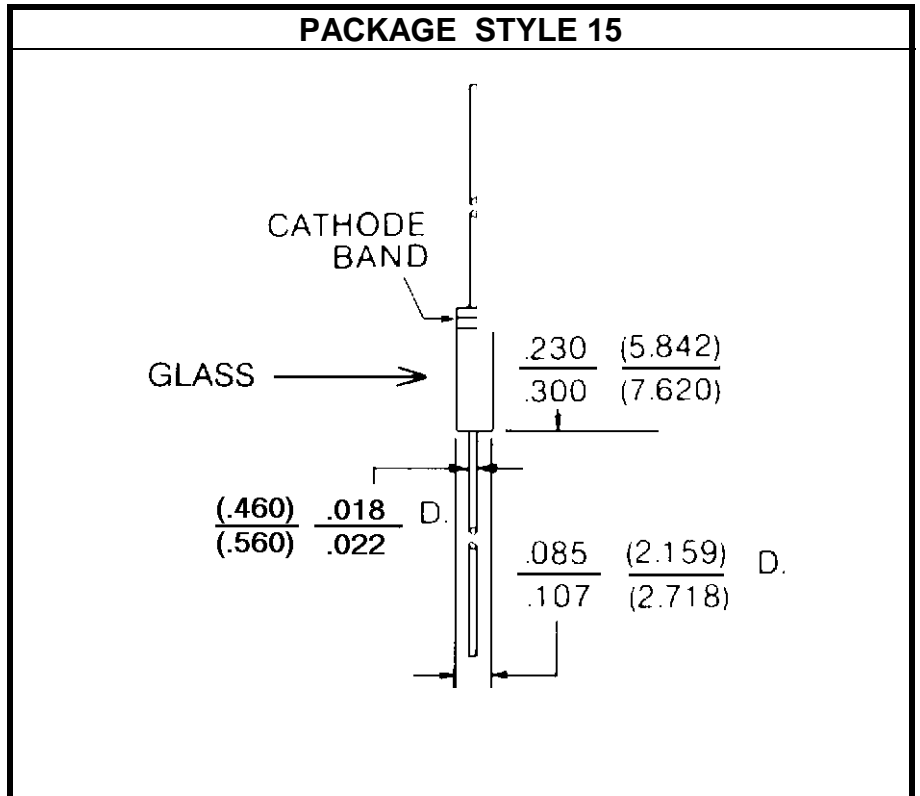
The **ASI AHV9501-15** is a Silicon Tuning Varactor Diode for HF to VHF operation.

**FEATURES INCLUDE:**

- Octave tuning from 4 to 20 V
- Ultra high Q
- Linear frequency performance versus voltage

**MAXIMUM RATINGS**

<b>I<sub>F</sub></b>	50 mA
<b>V<sub>R</sub></b>	22 V
<b>P<sub>DISS</sub></b>	280 mW @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-55 °C to +125 °C
<b>T<sub>STG</sub></b>	-55 °C to +125 °C


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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>V<sub>BR</sub></b>	I <sub>R</sub> = 10 μA	22			<b>V</b>
<b>I<sub>R</sub></b>	V <sub>R</sub> = 20 V			0.50	<b>μA</b>
<b>C<sub>t</sub></b>	V <sub>R</sub> = 4.0 V f = 1.0 MHz	180	200	220	<b>pF</b>
<b>C<sub>t</sub></b>	V <sub>R</sub> = 8.0 V f = 1.0 MHz	70	85	105	<b>pF</b>
<b>C<sub>t</sub></b>	V <sub>R</sub> = 20 V f = 1.0 MHz	29	32	36	<b>pF</b>
<b>C<sub>T4</sub>/C<sub>T20</sub></b>	f = 1.0 MHz	5.8	6.4	7.1	<b>---</b>
<b>Q</b>	V <sub>R</sub> = 1.0 V f = 1.0 MHz	80			<b>---</b>