

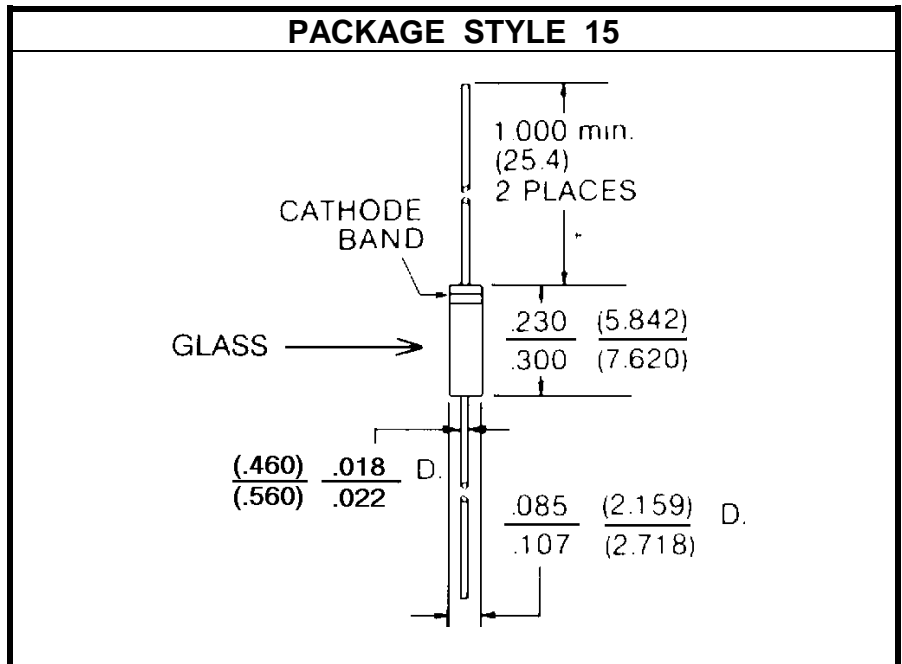
# SILICON ABRUPT JUNCTION TUNING VARACTOR

**DESCRIPTION:**

The **AT6019M** is an Epitaxial Silicon Abrupt Junction Microwave Tuning Varactor. This Device is Passivated With Silicon Dioxide Which Results in Very Low Leakage Current. The Capacitance Voltage Relationship Closely Approximates Square Law ( $n = 0.5$ ).

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	100 mA
<b>V<sub>CE</sub></b>	70 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>STG</sub></b>	-65 °C to +150 °C


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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>V<sub>B</sub></b>	I <sub>R</sub> = 10 μA	70			<b>V</b>
<b>C<sub>T</sub></b>	V <sub>R</sub> = 4.0 V	31.35	33.0	34.65	<b>pF</b>
<b>ΔC<sub>T</sub></b>	C <sub>T</sub> = 0 V / C <sub>T</sub> = 60 V	7.4			<b>RATIO</b>
<b>ΔC<sub>T</sub></b>	C <sub>T</sub> = 8.0 V / C <sub>T</sub> = 60 V	2.50		2.60	<b>RATIO</b>
<b>Q</b>	V <sub>R</sub> = 4.0 V	800			
<b>T<sub>C</sub></b>	V <sub>R</sub> = 4.0 V			300	<b>Ppm/°C</b>