

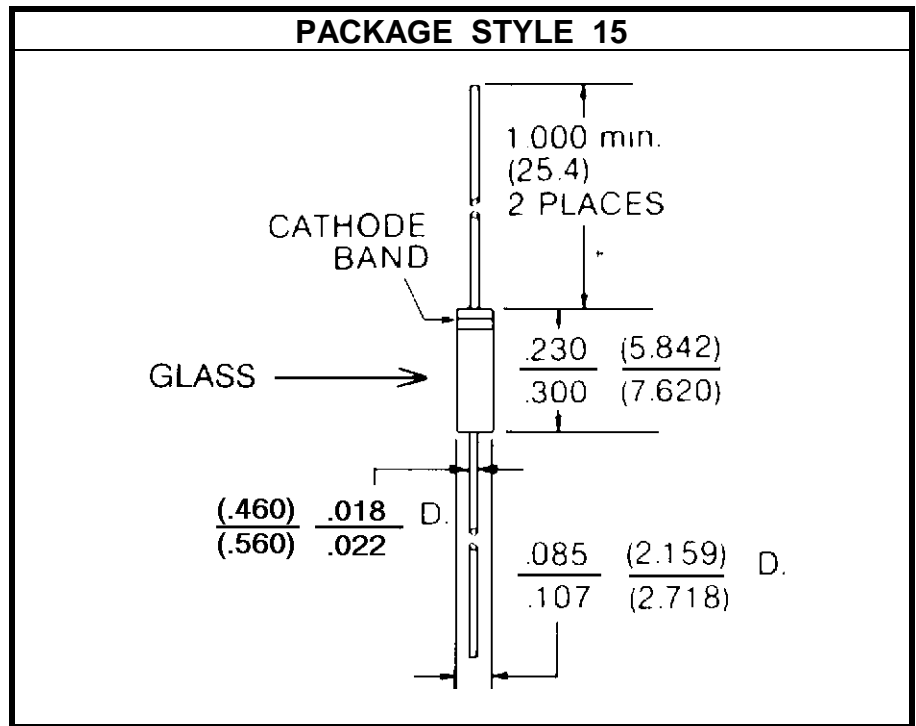
# SILICON ABRUPT JUNCTION TUNING VARACTOR

**DESCRIPTION:**

The **ASI AT6021M** 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**

$I_C$	100 mA
$V_{CE}$	70 V
$P_{DISS}$	250 mW @ $T_C = 25^\circ C$
$T_J$	-65 to +150 $^\circ C$
$T_{STG}$	-65 to +150 $^\circ C$
$\theta_{JC}$	500 $^\circ C/W$


**CHARACTERISTICS**  $T_C = 25^\circ C$ 

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_B$	$I_R = 10 \mu A$	70			V
$C_T$	$V_R = 4.0 V$ $f = 1.0 MHz$	44.65	47.0	49.35	pF
$\Delta C_T$	$C_{T0}/C_{T60}$ $f = 1.0 MHz$	7.4			---
$\Delta C_T$	$C_{T8}/C_{T60}$ $f = 1.0 MHz$	2.50		2.60	---
$Q$	$V_R = 4.0 V$ $f = 50 MHz$	600			---
$T_C$	$V_R = 4.0 V$			300	PPM/ $^\circ C$