

TUNING VARACTOR DIODE

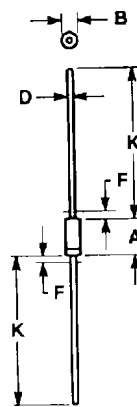
DESCRIPTION:

The **ASI 1N5148** is a Silicon Abrupt Junction Microwave Tuning Varactor Diode.

MAXIMUM RATINGS

I_F	250 mA
V_R	60 V
P_{DISS}	400 mW @ $T_A = 25\text{ }^{\circ}\text{C}$
T_J	$-65\text{ }^{\circ}\text{C}$ to $+175\text{ }^{\circ}\text{C}$
T_{STG}	$-65\text{ }^{\circ}\text{C}$ to $+200\text{ }^{\circ}\text{C}$

PACKAGE STYLE D0-204AA



Dim:	Millimeters		Inches	
	Min	Max	Min	Max
A	5.84	7.62	0.230	0.300
B	2.16	2.72	0.085	0.107
D	0.46	0.56	0.018	0.022
F	---	1.27	---	0.050
K	25.40	38.10	1.000	1.500

CHARACTERISTICS $T_C = 25\text{ }^{\circ}\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
V_{BR}	$I_R = 10\text{ }\mu\text{A}$	65			V
I_R	$V_R = 55\text{ V}$ $T_A = 150\text{ }^{\circ}\text{C}$			20 20	nA μA
C_{T4}	$V_R = 4.0\text{ V}$ $V_R = 5.0\text{ V}$ $f = 1.0\text{ MHz}$	42.3 38.8	47.0	51.7 47.4	pF
α	$V_R = 4.0\text{ V}$ $f = 1.0\text{ MHz}$	0.38	0.41		---
Q	$V_R = 4.0\text{ V}$ $f = 50\text{ MHz}$	200			---
L_S	$f = 250\text{ MHz}$		5.0		μH
C_C	$f = 1.0\text{ MHz}$		0.25		pF
C_{T4}/C_{T60}	$V_R = 4.0\text{ V}$ & 60 V $f = 1.0\text{ MHz}$		3.2		

NOTE: Voltage tolerance: $\pm 10\%$