

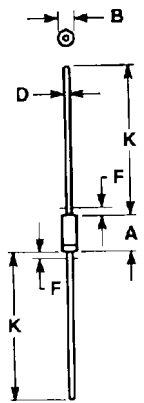
TUNING VARACTOR DIODE

DESCRIPTION:

The **1N5142** is a Silicon Hyper-Abrupt Junction Microwave Tuning Varactor Diode.

MAXIMUM RATINGS

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

PACKAGE STYLE D0-204AA					
	Millimeters		Inches		
	Dim:	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 $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
V_{BR}	$I_R = 10 \mu\text{A}$		60			V
I_R	$V_R = 55 \text{ V}$	$T_A = 150^\circ\text{C}$			20	μA
C_{T4}	$V_R = 4.0 \text{ V}$	$f = 1.0 \text{ MHz}$	13.5	15	16.5	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		nH
C_C		$f = 1.0 \text{ MHz}$		0.25		pF
C_{T4}/C_{T60}	$V_R = 4 \text{ \& } 60 \text{ V}$	$f = 1.0 \text{ MHz}$	2.8	3.0		---