

High Q silicon hyperabrupt junction tuning varactor



HIGH Q SILICON HYPERABRUPT JUNCTION TUNING VARACTOR

Description

This series of silicon tuning varactors consists of hyperabrupt epitaxial devices. They incorporate a passivated mesa technology. Packaged or chip devices are available for linear electronic tuning from VHF up to Ku band.

Characteristics @ $T_a = +25^\circ C$

Reverse breakdown voltage, $V_b = @ 10 \mu A$: 20 V min.

Reverse current, $I_r @ 16 V$: 200 nA

Test conditions		Figure of merit (Q)	Total capacitance (pF)					Tuning ratio		Chip
			Ct					Ct1V/Ct12V	Ct1V/CT20V	
Type	Case ⁽¹⁾	f = 50 MHz Vr = 4 V typ.	f = 1 MHz Vr = 1 V typ.	f = 1 MHz Vr = 4 V ±20%	f = 1 MHz Vr = 12 V typ.	f = 1 MHz Vr = 20 V typ.	f = 1 MHz typ.	f = 1 MHz typ.		
DH76010	F27d	2200	2.5	1.2	0.6	0.5	4.1	4.9	EH76010	
DH76015	F27d	2000	3.6	1.7	0.8	0.7	4.4	5.4	EH76015	
DH76022	F27d	1700	5.2	2.4	1.1	0.9	4.7	5.8	EH76022	
DH76033	F27d	1400	7.7	3.5	1.6	1.3	4.9	6.1	EH76033	
DH76047	F27d	1000	11	4.9	2.2	1.7	5.0	6.4	EH76047	
DH76068	F27d	700	16	6.9	3.0	2.4	5.1	6.5	EH76068	
DH76100	F27d	400	23	10.2	4.5	3.5	5.2	6.7	EH76100	
DH76150	F27d	140	34	15.2	6.6	5.1	5.2	6.8	EH76150	

(1) Custom cases available on request

Temperature ranges:

Operating junction (T_j) : -55° C to +150° C

Storage : -65° C to +150° C

Typical junction capacitance reverse voltage

