HIGH TUNING RATIO (>10) SILICON ABRUPT JUNCTION TUNING VARACTORS

V_{BR} = 90 V

This series of high Q epi-junction microwave tuning varactors (90 V) incorporates a passivated mesa technology. It is well suited for frequency tuning applications up to L band.

CHIP DIODES			CHIP AND PACKAGED DIODES		PACKAGED DIODES (1)				
TUNING RATIO $C_{j0}/C_{j90} \geq 10$			V_{BR} (10 µA) ≥ 90 V		STANDARD CASES			OTHER CASES	
CHARACTERISTICS AT 25° C		GOLD DIA Ø	JUNCTION CAPACITANCE C_j	FIG. OF MERIT Q			TUNING RATIO C_{TO}/C_{T90}		TUNING RATIO C_{TO}/C_{T90}
TEST CONDITIONS			V_R = 4 V f = 1 MHz	V_R = 4 V f = 50 MHz		CASE CAPACITANCE C_b		CASE CAPACITANCE C_b	
TYPE	CASE	µm	pF		TYPE	CASE		CASE	
		typ	± 20 % (2)	min		C_b= 0.18 pF (3)	min	C_b= 0.12 pF (3)	min
EH 74004	C 2a	90	0.4	1100	DH 74004	F 27d	4.4	M 208	4.8
EH 74006	C 2a	120	0.6	1100	DH 74006	F 27d	5.2	M 208	5.6
EH 74008	C 2a	130	0.8	1000	DH 74008	F 27d	6.0	M 208	6.5
EH 74010	C 2a	150	1.0	1000	DH 74010	F 27d	6.6	M 208	7.0
EH 74012	C 2a	160	1.2	950	DH 74012	F 27d	7.2	M 208	7.6
EH 74016	C 2a	180	1.6	950	DH 74016	F 27d	7.7	M 208	8.1
EH 74020	C 2a	210	2.0	900	DH 74020	F 27d	8.2	M 208	8.6
EH 74025	C 2a	230	2.5	900	DH 74025	F 27d	8.6	M 208	9.1
EH 74030	C 2a	250	3.0	900	DH 74030	F 27d	9.0	M 208	9.3
			± 20 % (2)			C_b= 0.18 pF (3)		C_b= 0.15 pF (3)	
EH 74037	C 2b	280	3.7	850	DH 74037	F 27d	9.2	BH 142	9.5
EH 74045	C 2b	310	4.5	850	DH 74045	F 27d	9.5	BH 142	9.7
EH 74054	C 2b	340	5.4	800	DH 74054	F 27d	9.6	BH 142	9.8
EH 74067	C 2b	370	6.7	800	DH 74067	F 27d	9.8	BH 142	9.9
EH 74080	C 2b	420	8.0	700	DH 74080	F 27d	9.9	BH 142	10.0
EH 74100	C 2b	460	10.0	700	DH 74100	F 27d	10.0	BH 142	10.0
EH 74120	C 2c	510	12.0	600	DH 74120	F 27d	10.0	BH 142	10.0
EH 74150	C 2c	570	15.0	500	DH 74150	F 27d	10.0	BH 142	10.0
EH 74180	C 2c	630	18.0	500	DH 74180	F 27d	10.0	BH 142	10.0
EH 74200	C 2c	660	20.0	400	DH 74200	F 27d	10.0	BH 142	10.0
			± 10 % (2)			C_b= 0.2 pF (3)		C_b= 0.4 pF (3)	
EH 74220	C 2d	700	22.0	400	DH 74220	BH 28	10.0	BH 157	10.0
EH 74270	C 2d	780	27.0	350	DH 74270	BH 28	10.0	BH 157	10.0
EH 74330	C 2d	850	33.0	300	DH 74330	BH 28	10.0	BH 157	10.0
			± 10 % (2)			C_b= 0.4 pF (3)		C_b= 0.4 pF (3)	
EH 74390	C 2g	930	39.0	250	DH 74390	BH 141	10.0	BH 157	10.0
EH 74470	C 2g	1020	47.0	250	DH 74470	BH 141	10.0	BH 157	10.0
EH 74560	C 2h	1110	56.0	200	DH 74560	BH 141	10.0	BH 157	10.0
EH 74680	C 2h	1230	68.0	200	DH 74680	BH 141	10.0	BH 157	10.0
EH 74820	C 2j	1350	82.0	150	DH 74820	BH 141	10.0	BH 157	10.0
EH 74999	C 2j	1500	100.0	150	DH 74999	BH 141	10.0	BH 157	10.0

(1) Custom cases available on request
(2) Closer capacitance tolerances available on request
(3) $C_T = C_j + C_b$
(4) Application Note 0028 available on request

TEMPERATURE RANGES :
Operating junction (T_j) : -55°C to +150°C
Storage : -65° C to +175° C