



SILICON TUNING VARACTORS

This series of high tuning ratio 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 $C_{j0}/C_{j90} \geq 10$		$V_{BR} (10 \mu A) \geq 90 V$			STANDARD CASES		OTHER CASES		
CHARACTERISTICS at 25°C		GOLD DIA \varnothing	JUNCTION CAPACIT. C_j	FIGURE OF MERIT Q	CASE TYPE	TUNING RATIO C_{T0}/C_{T90}	CASE TYPE	TUNING RATIO C_{T0}/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					
		typ	$\pm 20\%$ (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
			$\pm 20\%$ (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
			$\pm 10\%$ (2)			$C_b = 0.18 pF$ (3)		$C_b = 0.4 pF$ (3)	
EH 74220	C 2D	700	22.0	400	DH 74220	F 27d	10.0	BH 157	10.0
EH 74270	C 2D	780	27.0	350	DH 74270	F 27d	10.0	BH 157	10.0
EH 74330	C 2D	850	33.0	300	DH 74330	F 27d	10.0	BH 157	10.0
			$\pm 10\%$ (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 on request

(2) Closer tolerance on request

(3) $C_T = C_j + C_b$

Temperature range :

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

Storage : -65°C to 175°C