

Microwave solid state

multiplier varactor diodes

book 1 part 8

Type No.	Description	Outline	Drawing reference	Capacitance at V_R		V_R max. (V)	Maximum Transit Time (ps)	Typical Cut-off Frequency (GHz)	
				(pF)	(V)				
BAY96	Silicon planar diode for use in high efficiency multiplier circuits, input powers up to 30W	DO-4	B1	16 35	40 6	120	—	25	
BXY27	Silicon planar epitaxial varactor diode for use in multipliers up to S band and input powers up to 10W	SOD-31	N	4.5	6	55	—	70	
BXY28	Silicon planar epitaxial varactor diode for use in high efficiency multipliers in the 2 to 4 GHz range	SOD-31	N	1.5	6	45	—	100 min.	
BXY29	Silicon planar epitaxial varactor diode for use in frequency multiplier circuits in the 4 to 8 GHz range	SOD-31	N	1.0	6	25	—	120	
BXY32	Silicon planar step recovery diode for high order frequency multipliers with outputs in X band	SOD-31	N	0.75	6	20	150	150	
BXY35A, C	Silicon planar epitaxial varactor diodes for frequency multipliers up to 18 GHz, available in a variety of outlines Suffix A = Drawing ref. B = SOD-31 C = SOD-43 D = — E = SOD-45		DO-4	B1	9	6	100	—	25
BXY36B, C, D					5	6	70	500	75
BXY37B, C, D					3	6	70	350	100
BXY38B, C, D, E					1.6	6	50	300	120
BXY39B, C, D, E					1.0	6	40	200	150
BXY40B, C, D, E					0.65	6	25	150	180
BXY41B, C, D, E	0.4	6	25	100	200				
BXY56	High efficiency silicon diodes for multipliers with output frequencies in C and X bands	SOD-31	N	2.0	6	60	—	160	
BXY57				3.0	6	60	—	140	
1N4885	Silicon varactor diode for use in high efficiency multiplier circuits	DO-4	B1	35	6	150	—	25	
1N5152	Silicon planar epitaxial varactor diodes for use in multipliers up to S band	SOD-31	N	6	6	75	—	100	
1N5153		SOD-43	R	6	6	75	—	100	
1N5155	Silicon planar epitaxial varactor diode for use in multipliers up to C band	SOD-31	N	2	6	35	—	120	
1N5157	Silicon planar epitaxial varactor diode for use in multipliers up to X band	SOD-31	N	0.8	6	20	—	200	

special purpose varactor diodes

Type No.	Description	Outline	Drawing reference	Capacitance at V_R		V_R max. (V)	Series Resonant Frequency (GHz)	Typical Cut-off Frequency (GHz)
				(pF)	(V)			
CAY10	Gallium arsenide diode, diffused mesa type, for use in microwave parametric amplifiers, frequency multipliers and switches	SOD-31	N	0.4	0	6	10	250
CXY10	Gallium arsenide diode with a high cut-off frequency for use in parametric amplifiers, frequency multipliers and switches	SOD-46	T	0.2	0	6	30	400
CXY12	Gallium arsenide diode with a high cut-off frequency for use in frequency multipliers up to Q band	SOD-46	T	0.25	6	10	29	500
Type No.	Description	Outline	Drawing reference	Frequency Range (GHz)	Attenuation (dB)	Insertion Loss (dB)		
CXY22A	Gallium arsenide devices for limiter applications from C to X-band	SOD-31	N	2 - 7	20	0.2		
CXY22B				7 - 12	16	0.3		
Type No.	Description	Outline	Drawing reference	Excess Noise Ratio (dB)	C_j (pF)	I_r (mA)		
BAT31	Silicon avalanche device for use as noise source from 10MHz to 18GHz	SOD-31	N	34	0.6	5.0		