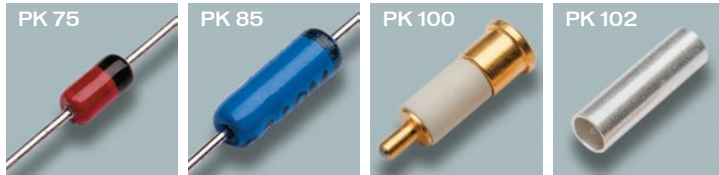


# Point Contact Diodes

SemiGen's 1N Series of Point Contact Mixer Diodes are designed for applications through KA band. Each device in this series is specially designed for low noise figure, impedance and VSWR. Our devices are drop in replacements for all military and commercial requirements. These diodes employ epitaxial silicon grown in a specific reactor for optimized performance. They are suitable for use in stripline applications.



Noise Figure 3.060 GHz LO = 1.0 mW RI = 100 Ohms MAX (db)	VSWR 3.060 GHz LO = 1.0 mW RI = 100 Ohms MAX (Ratio)	IF Impedance 3.060 GHz LO = 1.0 mW RI = 100 Ohms MIN/MAX (Ohms)	Conversion Loss 3.060 GHz LO = 1.0 mW RI = 100 Ohms MAX (db)	Package Style	Part Number
8.5	-	325 - 465	-	PK100	1N21C
7.5	-	325 - 465	-	PK100	1N21D
7.0	1.5	350 - 450	-	PK100	1N21E
7.0	1.5	350 - 450	-	PK101	1N21WE
6.0	1.3	350 - 450	-	PK100	1N21F
5.5	1.3	350 - 450	5.0	PK100	1N21G
5.5	1.3	350 - 450	5.0	PK101	1N21WG
6.5	1.5	335 - 465	-	PK101	1N416C
7.5	1.3	335 - 465	-	PK101	1N416D
7.0	1.3	335 - 465	7.0	PK101	1N416E
6.5	1.3	335 - 465	6.5	PK101	1N416F
6.0	1.3	335 - 465	6.0	PK101	1N416G
8.5	-	300 - 500	-	PK85	1N831
7.0	-	300 - 500	-	PK85	1N831A
6.5	-	300 - 500	-	PK85	1N831B
6.0	-	300 - 500	-	PK85	1N831C

Maximum Ratings		
Operating Temperature	Storage Temperature	Power Dissipation @ 25° C
-55° C to +150° C	-65° C to +200° C	250 mW

For matched Fwd pair use suffix M after part number.  
For reverse device use suffix R.  
For Matched Fwd and Rev use suffix MR..

Rectification Efficiency MIN	Tangential Signal Sensitivity TYP (dB)	Video Resistance MAX (Ohms)	Operating Frequency (MHz)	Package Style	Part Number
65%	-	-	100	PK85	1N830
65% @ 5 Vdc	-	-	100	PK85	1N830A
-	49	22	3000	PK100	1N32
-	47	17	3000	PK100	1N32A
-	40	18	9375	PK85	1N833
-	45	18	9375	PK85	1N833A
-	51	3.1	9000	PK102	1N1611
-	53	3.1	9000	PK100	1N1611A
-	53	3.1	9000	PK100	1N1611B
-	50	10	9375	PK101	1N3778

Noise Figure 9.375 GHz LO 7.5-1.0 mW RI = 100 Ohms MAX (db)	VSWR 9.375 GHz LO = 1.0 mW RI = 100 Ohms MAX (Ratio)	IF Impedance 9.375 GHz LO = 1.0 mW RI = 100 Ohms MIN/MAX (Ohms)	Conversion Loss 9.375 GHz LO = 1.0 mW RI = 100 Ohms MAX (db)	Package Style	Part Number
12.0	-	200 - 600	-	PK100	1N23
11.0	-	200 - 600	-	PK100	1N23A
10.0	1.5	335 - 465	-	PK100	1N23B
9.0	1.5	335 - 465	-	PK100	1N23C
8.5	1.3	335 - 465	-	PK100	1N23D
7.5	1.3	335 - 465	7.0	PK100	1N23E
7.5	1.3	335 - 465	7.0	PK101	1N23WE
7.0	1.3	335 - 465	6.5	PK100	1N23F
6.5	1.3	335 - 465	6.0	PK100	1N23G
6.5	1.3	335 - 465	6.0	PK101	1N23WG
6.0	1.3	335 - 465	5.5	PK100	1N23H
9.0	1.5	335 - 465	-	PK101	1N415C
8.5	1.3	335 - 465	-	PK101	1N415D
7.5	1.3	335 - 465	7.0	PK101	1N415E
7.0	1.3	335 - 465	6.5	PK101	1N415F
6.5	1.3	335 - 465	6.0	PK101	1N415G
6.0	1.3	335 - 465	5.5	PK101	1N415H
9.5	-	250 - 500	-	PK85	1N832
7.5	-	250 - 500	-	PK85	1N832A
7.0	-	250 - 500	-	PK85	1N832B
6.5	-	250 - 500	-	PK85	1N832C