

Point Contact Diodes: 1N Series

Description

The 1N series S - X of Point Contact Mixer diodes is designed for applications from S Band through X-Band. Each device in this series is in a cartridge package specially designed for low noise figure performance. These diodes employ epitaxial silicon optimized for low noise figure and wide bandwidth and are used in single or multiple device mixer applications.

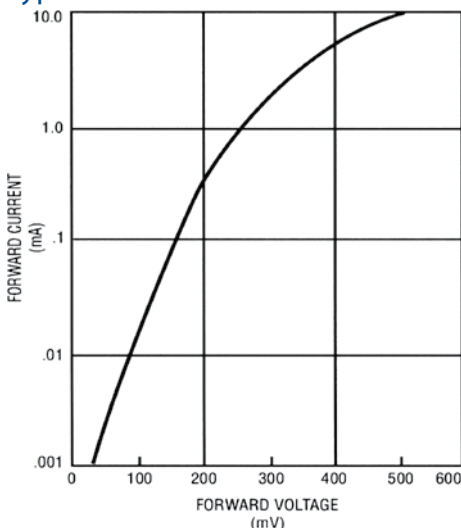
Applications

The 1N series of Point Contact Mixers is suitable for use in waveguide, coaxial and stripline applications.

Packaging

- Cartridge Style

Typical Performance



Electrical Specifications

Part Number	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)	Case Style
1N21C	8.5	—	325 - 465	—	PS100
1N21D	7.5	—	325 - 465	—	PS100
1N21E	7.0	1.5	350 - 450	—	PS100
1N21WE	7.0	1.5	350 - 450	—	PS101
1N21F	6.0	1.3	350 - 450	—	PS101
1N21G	5.5	1.3	350 - 450	5.0	PS100
1N21WG	5.5	1.3	350 - 450	5.0	PS100
1N416C	8.5	1.5	335 - 465	—	PS101
1N416D	7.5	1.3	335 - 465	—	PS101
1N416E	7.0	1.3	335 - 465	7.0	PS101
1N416F	6.5	1.3	335 - 465	6.5	PS101
1N416G	6.0	1.3	335 - 465	6.0	PS101

Part Number	Noise Figure 9,375 GHz LO = 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)	Case Style
1N23	12.0	—	200 - 600	—	PS100
1N23A	11.0	—	200 - 600	—	PS100
1N23B	10.0	1.5	335 - 465	—	PS100
1N23C	9.0	1.5	335 - 465	—	PS100
1N23D	8.5	1.3	335 - 465	—	PS100
1N23E	7.5	1.3	335 - 465	7.0	PS100
1N23WE	7.5	1.3	335 - 465	7.0	PS101
1N23F	7.0	1.3	335 - 465	6.5	PS100
1N23G	6.5	1.3	335 - 465	6.0	PS101
1N23WG	6.5	1.3	335 - 465	6.0	PS101
1N23H	6.0	1.3	335 - 465	5.5	PS100
1N415C	9.0	1.5	335 - 465	—	PS101
1N415D	8.5	1.3	335 - 465	—	PS101
1N415E	7.5	1.3	335 - 465	7.0	PS101
1N415F	7.0	1.3	335 - 465	6.5	PS101
1N415G	6.5	1.3	335 - 465	6.0	PS101
1N415H	6.0	1.3	335 - 465	5.5	PS101

NOTES:

For matched Fwd pair use suffix M after P/N

For reverse device use suffix R

For matched Fwd and Rev use suffix MR

Operating Temperature:

-55°C to 150°C

Storage Temperature:

-65°C to 200°C