

- Amplifiers
- VCOs
- Limiting Amplifiers
- Switches
- Linearizers
- Limiters
- Analog Attenuators
- Digital Attenuators
- Detectors

# PN9302 / SPN9302\*

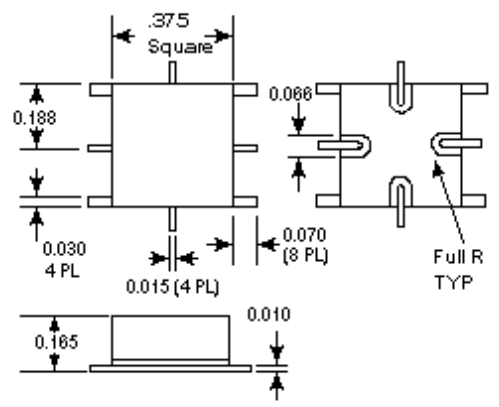
\* Part number for additional environmental screening.

## Performance Data

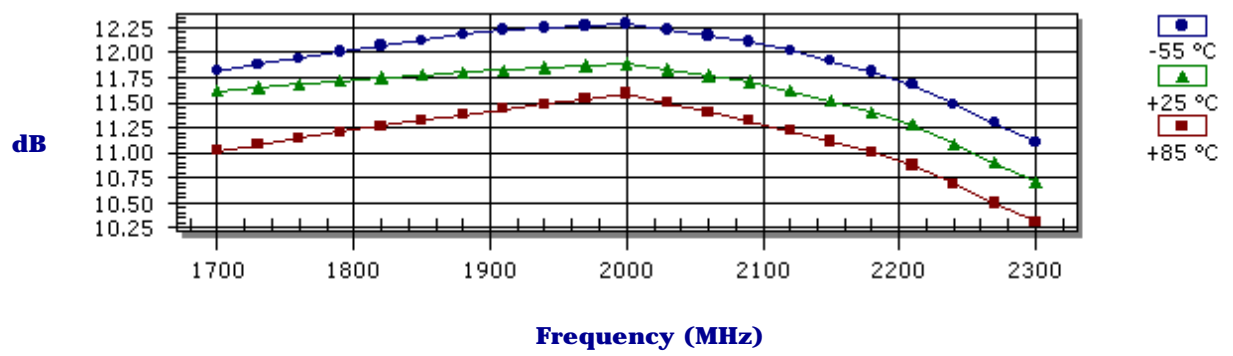
Frequency	1700.0 - 2300.0 MHz
Gain	10.5 dB Typical 8.5 dB Min
Noise Figure	5.0 dB Typical 6.5 dB Max
P <sub>1dB</sub>	11.0 dBm Typical 9.0 dBm Min
3 <sup>rd</sup> Order Intercept	23.0 dBm Typical
2 <sup>nd</sup> Order Intercept	40.0 dBm Typical
VSWR	1.8/2.0 Input Typ/Max 1.5/2.0 Output Typ/Max
Reverse Isolation	-13.0 dB Typical -12.0 dB Min
Power Supply	15.0 Volts 18.0 mA
Operating Temperature	-55.0 - 85.0 °C

## Package Drawing

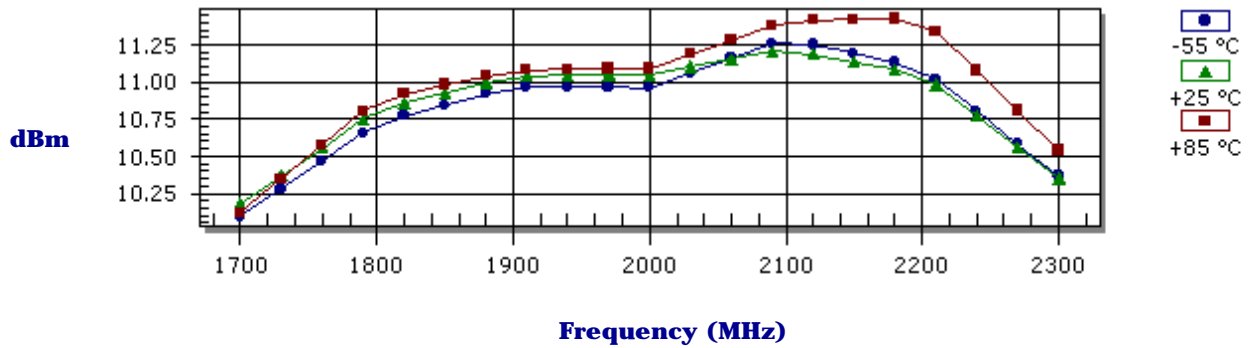
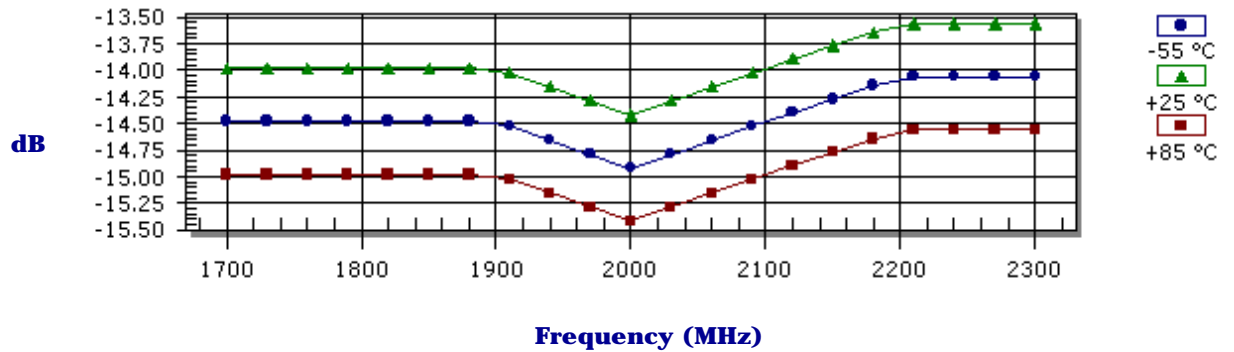
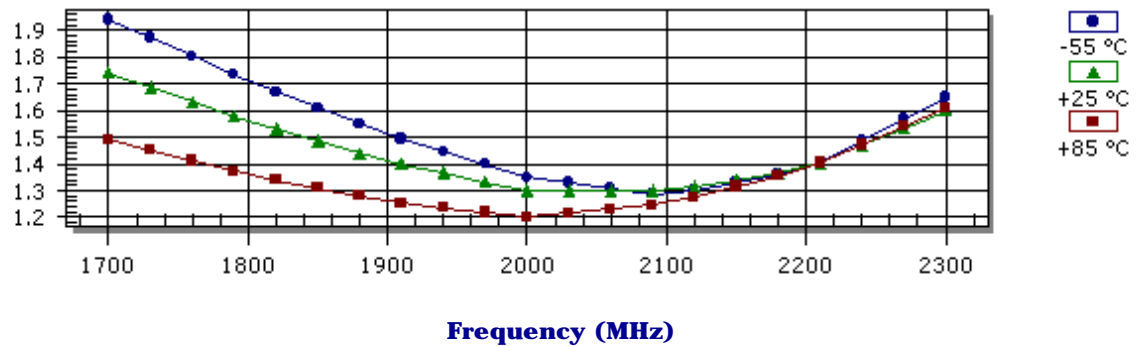
### SM-11 (Surface Mount)



## Gain



## Noise Figure

**$P_{1dB}$  Compression Point****Reverse Isolation****Input VSWR****Output VSWR**

**S-Parameters**

Frequency	S11 Mag	S11 Ang	S21 Mag	S21 Ang	S12 Mag	S12 Ang	S22 Mag	S22 Ang
1700.0	0.270	33.00	3.810	37.00	0.200	-19.00	0.160	-11.00
1800.0	0.220	29.00	3.860	25.00	0.200	-21.00	0.120	-39.00
1900.0	0.170	29.00	3.900	13.00	0.200	-23.00	0.100	-80.00
2000.0	0.130	43.00	3.930	1.00	0.190	-22.00	0.100	-130.00
2100.0	0.130	67.00	3.840	-13.00	0.200	-21.00	0.130	-167.00
2200.0	0.160	83.00	3.690	-26.00	0.210	-22.00	0.170	164.00
2300.0	0.230	86.00	3.430	-39.00	0.210	-23.00	0.210	140.00

**Absolute Maximum Conditions**

Maximum Operating Temperature	-55.0 - 100.0 °C	Maximum Storage Temperature	-62.0 - 125.0 °C
Maximum Case Temperature	125.0 °C	Maximum Supply Voltage	18.0 Volts
Continuous RF Input Power	13.0 dBm	Short Term RF Input Power (1 minute max)	50.0 mW
Maximum Peak Power (3 µsec max)	0.5 W		

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