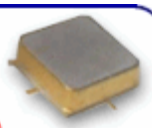




Detailed Drawing

Printer Friendly Datasheet

# RN6520 / SRN6520*

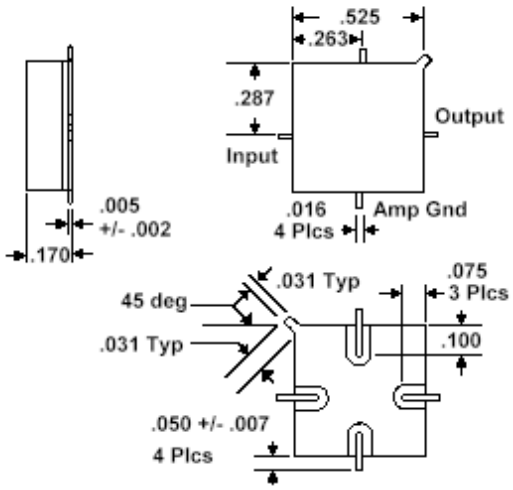
* Part number for additional environmental screening.

## Performance Data

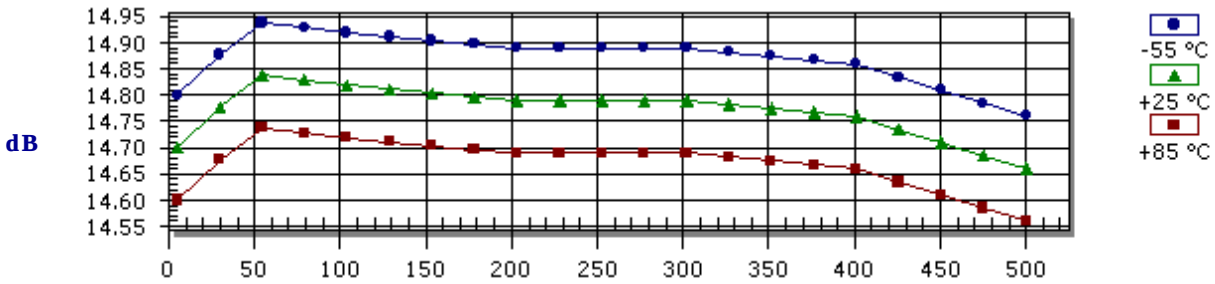
| | |
|---|---|
| **Frequency** | 5.0 - 500.0 MHz |
| **Gain** | 14.5 dB Typical<br>13.5 dB Min |
| **Noise Figure** | 3.5 dB Typical<br>4.5 dB Max |
| **$P_{1dB}$** | 13.0 dBm Typical<br>11.5 dBm Min |
| **3rd Order Intercept** | 27.0 dBm Typical |
| **2nd Order Intercept** | 34.0 dBm Typical |
| **VSWR** | 1.3/2.0 Input Typ/Max<br>1.5/2.0 Output Typ/Max |
| **Reverse Isolation** | -17.0 dB Typical<br>-16.0 dB Min |
| **Power Supply** | 5.0 Volts<br>33.0 mA |
| **Operating Temperature** | -55.0 - 85.0 °C |

## Package Drawing

**SM-19 Surface Mount Package**

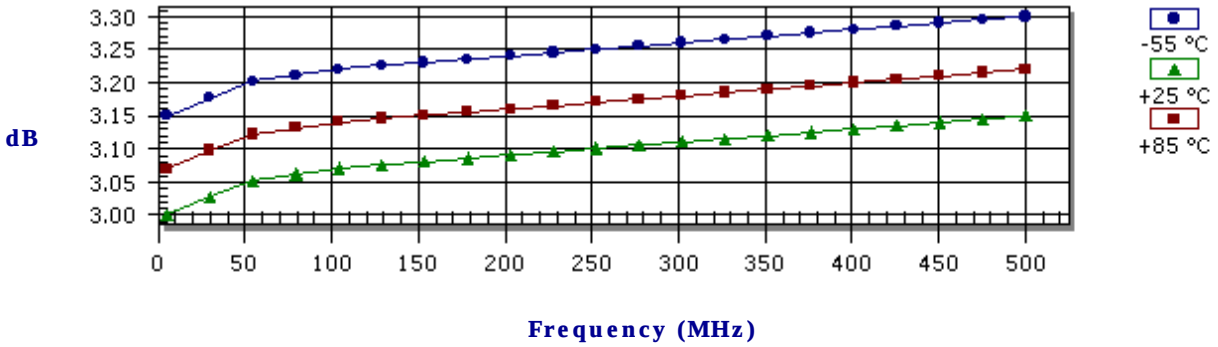



## Gain

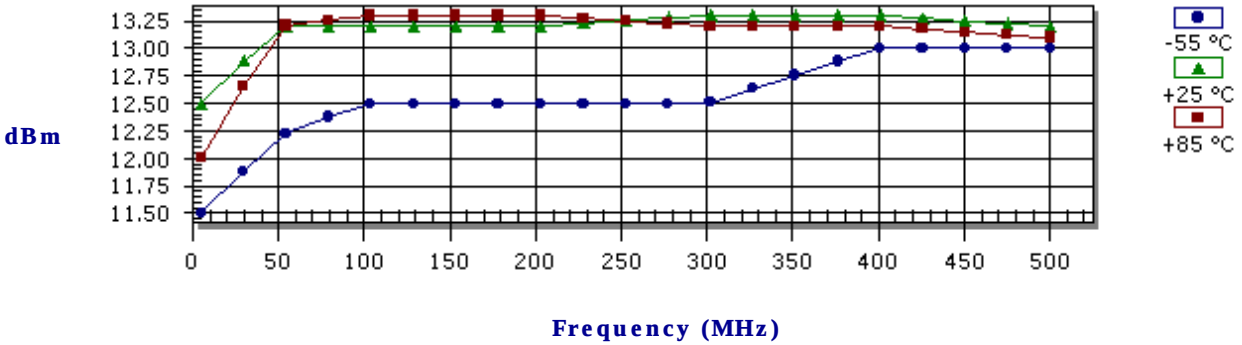



Frequency (MHz)

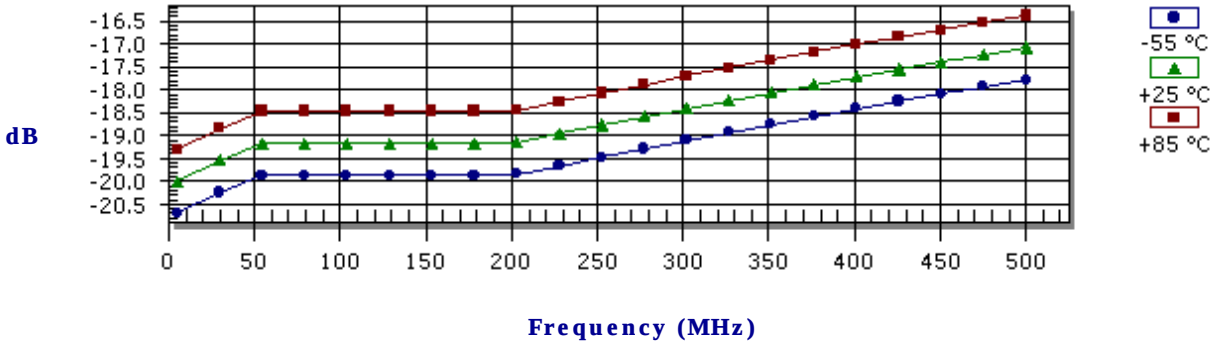
## Noise Figure



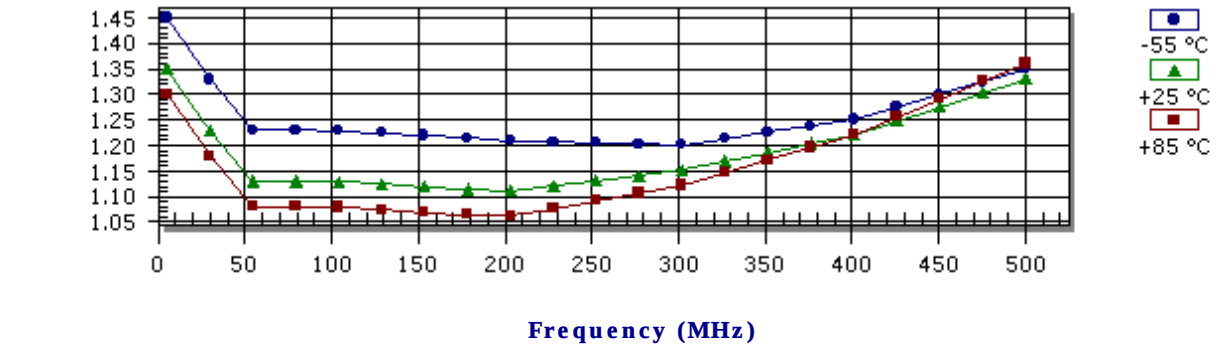

## $P_{1dB}$ Compression Point



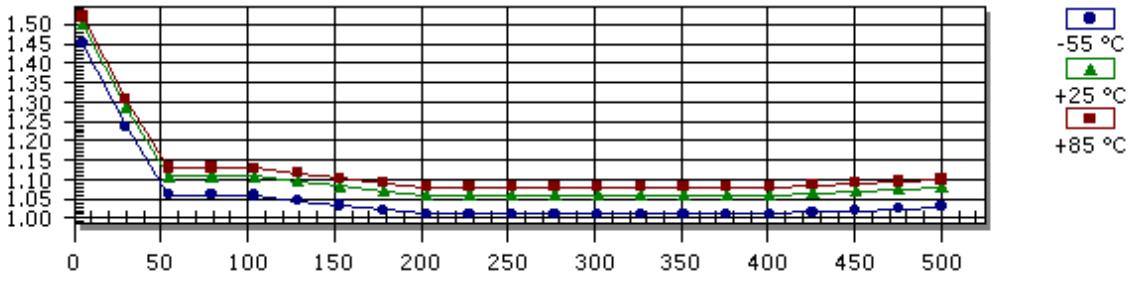

## Reverse Isolation




## Input VSWR




## Output VSWR




**Frequency (MHz)**

## S-Parameters

| Frequency | S11 Mag | S11 Ang | S21 Mag | S21 Ang | S12 Mag | S12 Ang | S22 Mag | S22 Ang |
|---|---|---|---|---|---|---|---|---|
| 5.0 | 0.150 | -74.00 | 5.430 | -167.00 | 0.100 | 14.00 | 0.200 | 124.00 |
| 50.0 | 0.060 | -160.00 | 5.520 | 171.00 | 0.110 | 0.00 | 0.050 | 151.00 |
| 100.0 | 0.060 | -162.00 | 5.510 | 161.00 | 0.110 | -3.00 | 0.050 | 152.00 |
| 200.0 | 0.050 | -149.00 | 5.490 | 140.00 | 0.110 | -8.00 | 0.030 | 158.00 |
| 300.0 | 0.070 | -128.00 | 5.490 | 120.00 | 0.120 | -12.00 | 0.030 | 171.00 |
| 400.0 | 0.100 | -123.00 | 5.470 | 99.00 | 0.130 | -19.00 | 0.030 | 178.00 |
| 500.0 | 0.140 | -130.00 | 5.410 | 78.00 | 0.140 | -27.00 | 0.040 | -179.00 |

## 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** | 10.0 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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