

Part/Keyword Search



Detailed Drawing



Printer Friendly Datasheet

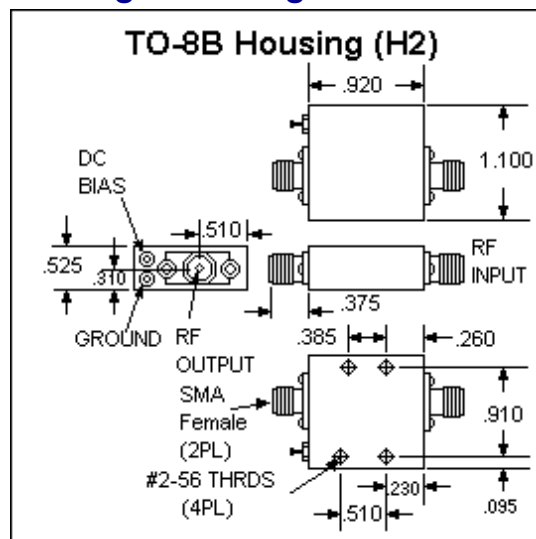
## BR6131 / SBR6131\*

\* Part number for additional environmental screening.

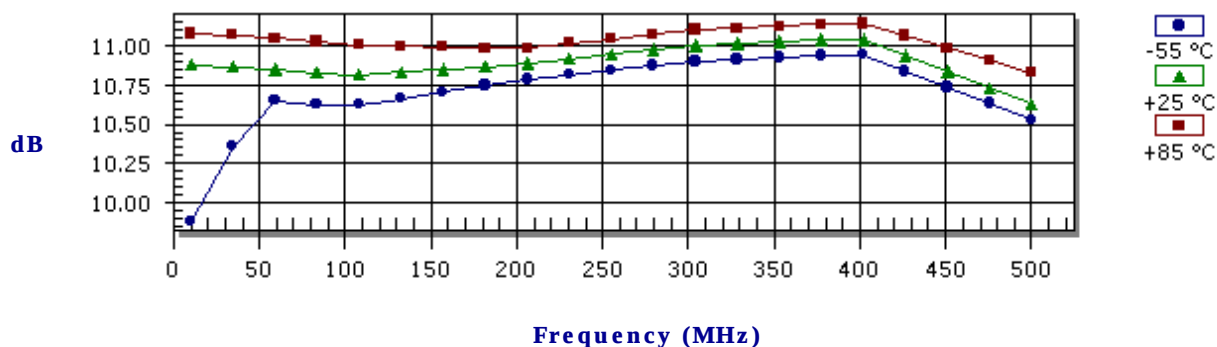
### Performance Data

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Frequency                       | 10.0 - 500.0 MHz                                |
| Gain                            | 10.3 dB Typical<br>9.0 dB Min                   |
| Noise Figure                    | 4.5 dB Typical<br>6.5 dB Max                    |
| P <sub>1dB</sub>                | 20.0 dBm Typical<br>18.0 dBm Min                |
| 3 <sup>rd</sup> Order Intercept | 37.0 dBm Typical                                |
| 2 <sup>nd</sup> Order Intercept | 50.0 dBm Typical                                |
| VSWR                            | 1.2/2.0 Input Typ/Max<br>1.2/2.0 Output Typ/Max |
| Reverse Isolation               | -22.0 dB Typical<br>-20.0 dB Min                |
| Power Supply                    | 15.0 Volts<br>62.0 mA                           |
| Operating Temperature           | -55.0 - 85.0 °C                                 |

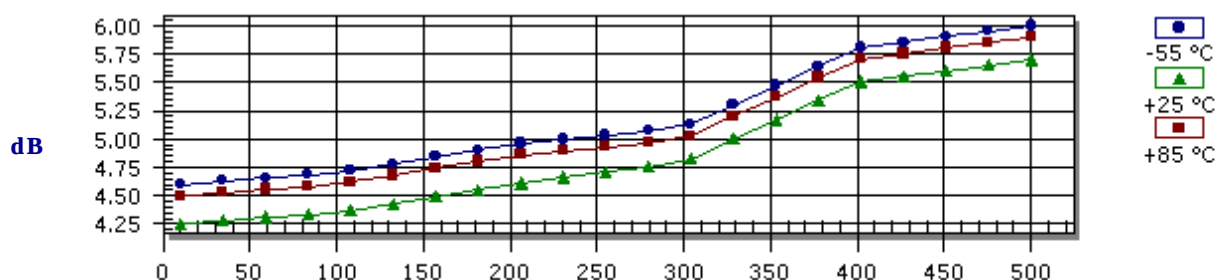
### Package Drawing



### Gain

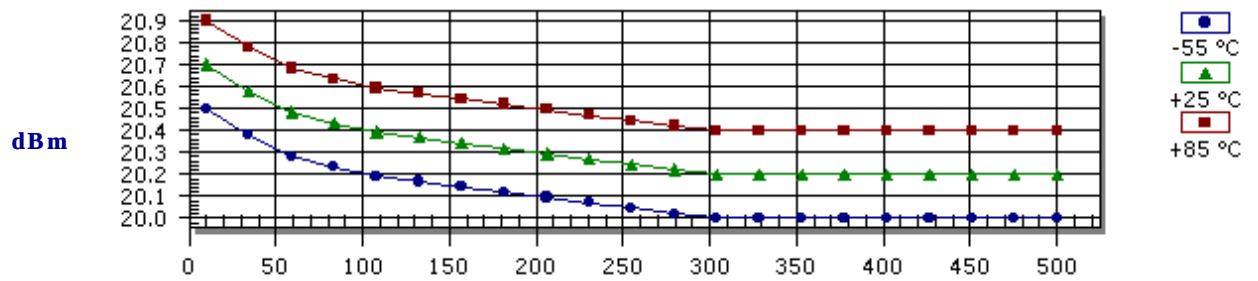


### Noise Figure



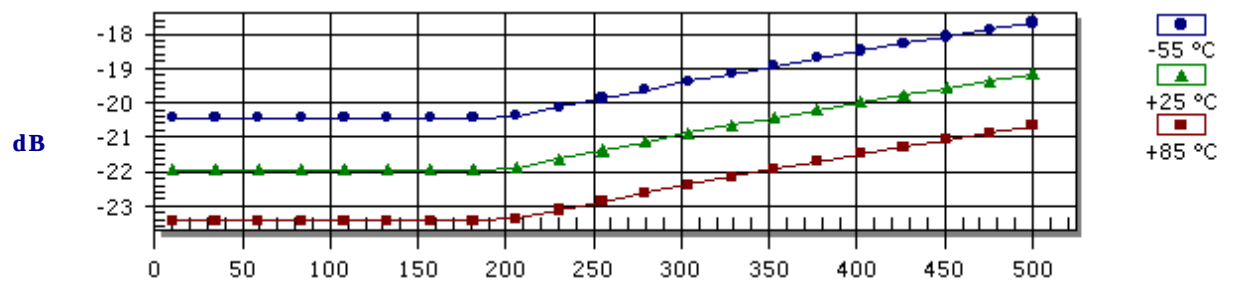
Frequency (MHz)

### $P_{1dB}$ Compression Point



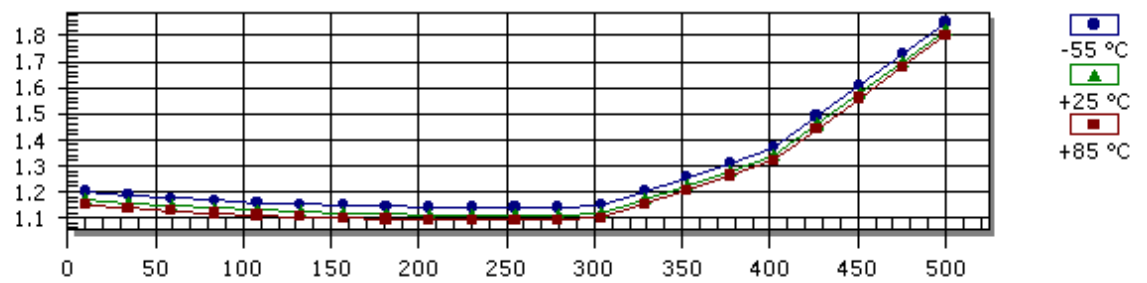
Frequency (MHz)

### Reverse Isolation



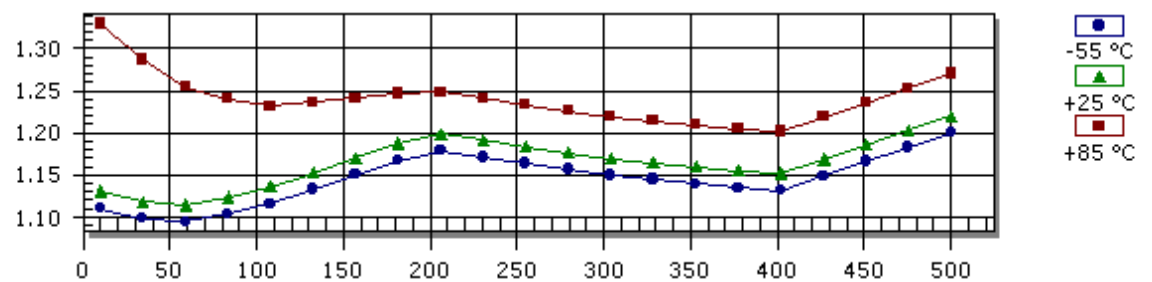
Frequency (MHz)

### Input VSWR



Frequency (MHz)

### Output VSWR



Frequency (MHz)

## S-Parameters

| Frequency | S11 Mag | S11 Ang | S21 Mag | S21 Ang | S12 Mag | S12 Ang | S22 Mag | S22 Ang |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 10.0      | 0.080   | -27.00  | 3.500   | -170.00 | 0.080   | -171.00 | 0.060   | -141.00 |
| 50.0      | 0.070   | -16.00  | 3.490   | 168.00  | 0.080   | 167.00  | 0.050   | 149.00  |
| 100.0     | 0.060   | -17.00  | 3.470   | 152.00  | 0.080   | 149.00  | 0.060   | 105.00  |
| 200.0     | 0.050   | -47.00  | 3.500   | 123.00  | 0.080   | 119.00  | 0.090   | 48.00   |
| 300.0     | 0.050   | -133.00 | 3.550   | 94.00   | 0.090   | 91.00   | 0.080   | -11.00  |
| 400.0     | 0.140   | 159.00  | 3.570   | 61.00   | 0.100   | 64.00   | 0.070   | -87.00  |
| 500.0     | 0.290   | 120.00  | 3.400   | 25.00   | 0.110   | 35.00   | 0.100   | -178.00 |

## 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<br>(1 minute max) | 50.0 mW          |
| Maximum Peak Power<br>(3 µsec max) | 0.5 W            |                                             |                  |

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# i2 Technologies US, Inc.

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