



Part/Keyword Search



Detailed Drawing



Printer Friendly Datasheet

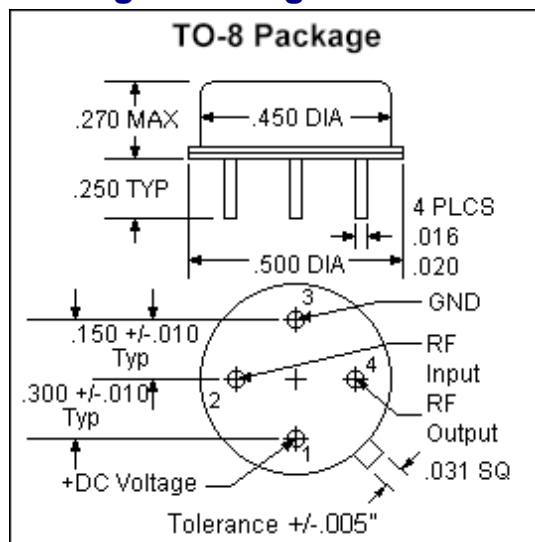
## TM6547 / SM6547\*

\* Part number for additional environmental screening.

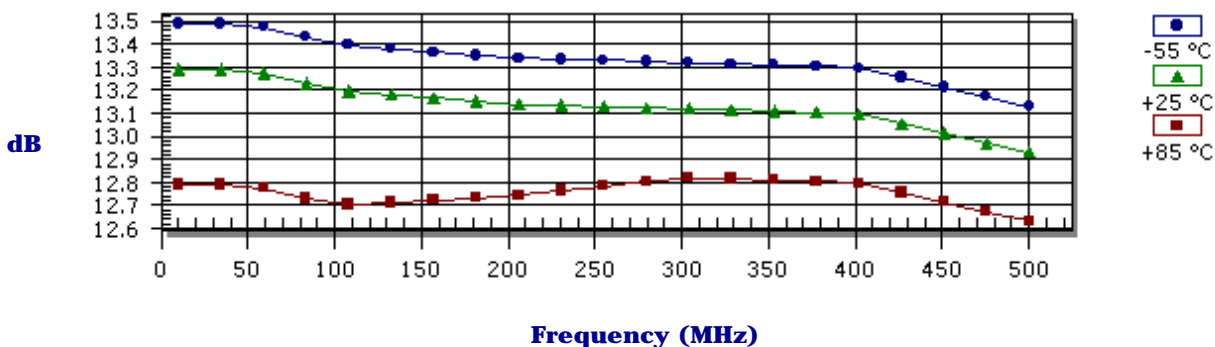
### Performance Data

|                                 |                                                 |
|---------------------------------|-------------------------------------------------|
| Frequency                       | 10.0 - 500.0 MHz                                |
| Gain                            | 12.5 dB Typical<br>11.0 dB Min                  |
| Noise Figure                    | 4.0 dB Typical<br>4.5 dB Max                    |
| P <sub>1dB</sub>                | 19.0 dBm Typical<br>17.5 dBm Min                |
| 3 <sup>rd</sup> Order Intercept | 35.0 dBm Typical                                |
| 2 <sup>nd</sup> Order Intercept | 48.0 dBm Typical                                |
| VSWR                            | 1.8/2.0 Input Typ/Max<br>1.5/2.0 Output Typ/Max |
| Reverse Isolation               | -17.0 dB Typical<br>-15.0 dB Min                |
| Power Supply                    | 15.0 Volts<br>55.0 mA                           |
| Operating Temperature           | -55.0 - 85.0 °C                                 |

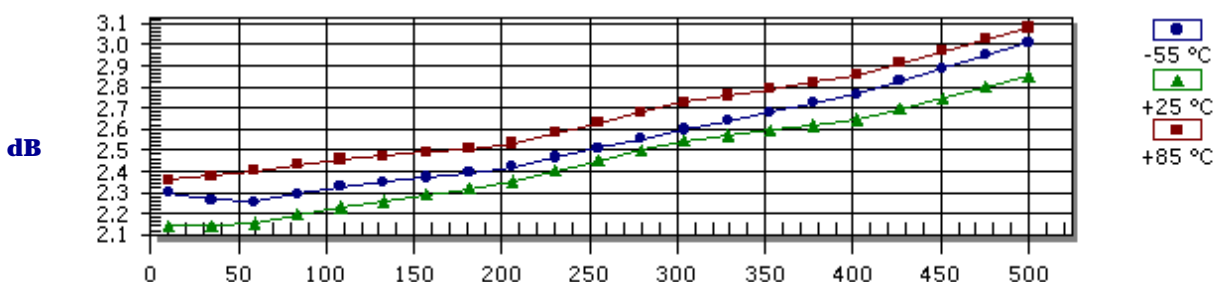
### Package Drawing



### Gain



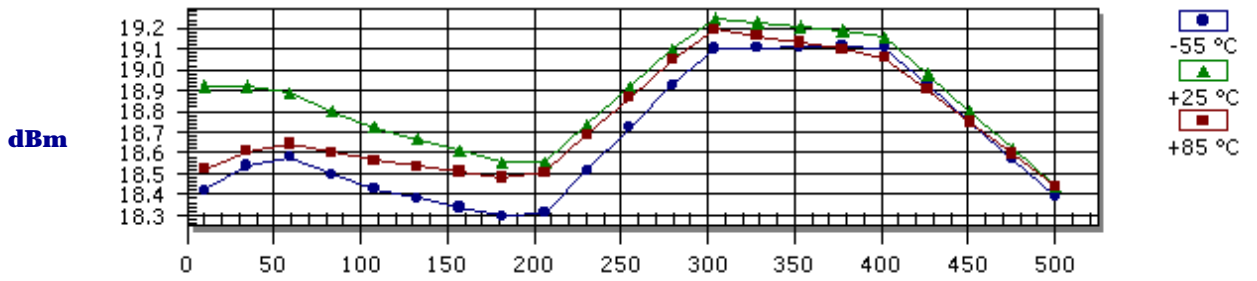
### Noise Figure



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

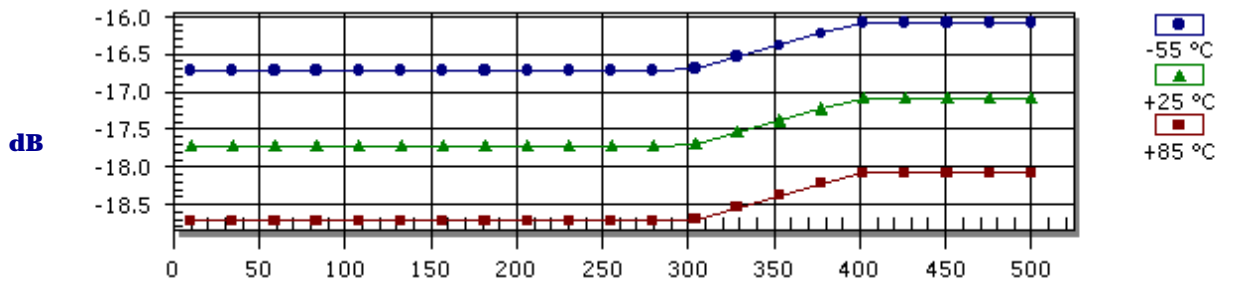
Frequency (MHz)

### P<sub>1dB</sub> Compression Point



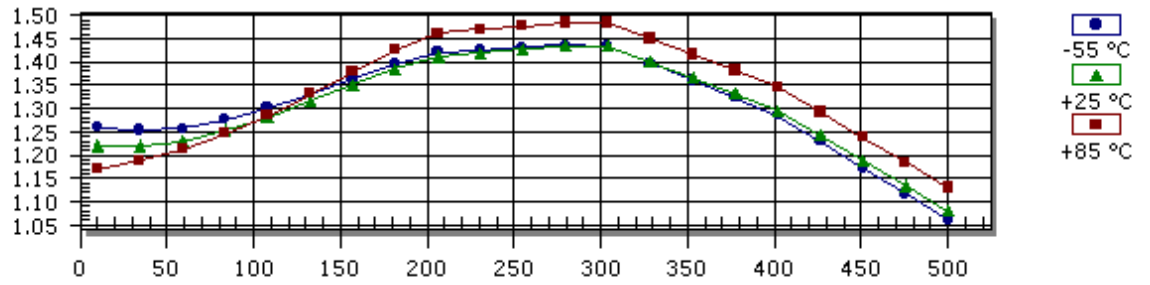
Frequency (MHz)

### Reverse Isolation



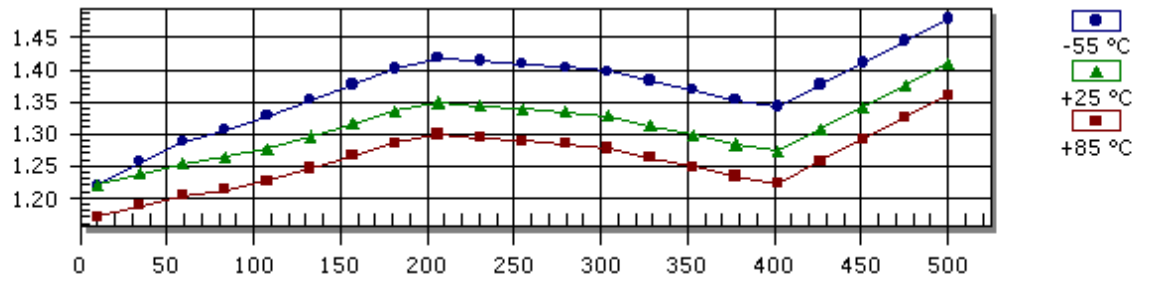
Frequency (MHz)

### 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      | 0.100   | -13.00  | 4.620   | -173.00 | 0.130   | -174.00 | 0.100   | -8.00   |
| 50.0      | 0.100   | 7.00    | 4.620   | 169.00  | 0.130   | 169.00  | 0.110   | 3.00    |
| 100.0     | 0.120   | 14.00   | 4.570   | 155.00  | 0.130   | 153.00  | 0.120   | 5.00    |
| 200.0     | 0.170   | 6.00    | 4.540   | 129.00  | 0.130   | 127.00  | 0.150   | -8.00   |
| 300.0     | 0.180   | -16.00  | 4.530   | 103.00  | 0.130   | 102.00  | 0.140   | -39.00  |
| 400.0     | 0.130   | -44.00  | 4.520   | 75.00   | 0.140   | 76.00   | 0.120   | -94.00  |
| 500.0     | 0.040   | -89.00  | 4.430   | 43.00   | 0.140   | 50.00   | 0.170   | -170.00 |

## 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) | 0.2 W            |                                             |                  |

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# i2 Technologies US, Inc.

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