

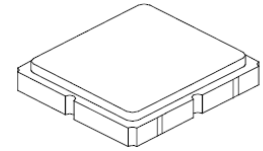
- RF SAW Filter, 2330 MHz, 60 MHz BW
- 3.0 x 3.0 x 1.4 mm Surface-mount Case
- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

Absolute Maximum Ratings

| Rating | Value | Units |
|--|------------|-------|
| Input Power | +10 | dBm |
| DC Voltage on any Non-ground Terminal | 3 | V |
| Operating Temperature Range | -40 to +85 | °C |
| Component Storage Temperature Range | -50 to +95 | °C |
| Storage Temperature Range in Tape and Reel | -40 to +85 | °C |
| Maximum Soldering Profile, 5 Cycles/10 seconds Maximum | 265 | °C |

SF2160E

**2330 MHz
SAW Filter**



SM3030-6

Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|--|-------|------------------|---------------------------------------|------|-----|-------|
| Center Frequency | f_c | | | 2330 | | MHz |
| Insertion Loss | | 2300 to 2360 MHz | | 2.4 | 3.2 | dB |
| Amplitude Ripple: | | | | | | |
| 2300 to 2360 MHz | | | | 1.1 | 2 | dB |
| 2300 to 2320 MHz | | | | 0.3 | 1 | |
| 2320 to 2340 MHz | | | | 0.6 | 1 | |
| 2340 to 2360 MHz | | | | 0.5 | 1 | |
| Return Loss | | 2300 to 2360 MHz | 9 | 9.5 | | dB |
| Attenuation Referenced to 0 dB: | | | | | | |
| DC to 2085 MHz | | | 25 | 30 | | dB |
| 2097 to 2235 MHz | | | 25 | 36 | | |
| 2235 to 2256 MHz | | | 15 | 29 | | |
| Case Style | | | SM3030-6 3 x 3 x 1.4 mm Surface-Mount | | | |
| Lid Symbolization, Y=year, WW=week, S=shift) | | | 826, YWWS | | | |

Electrical Connections

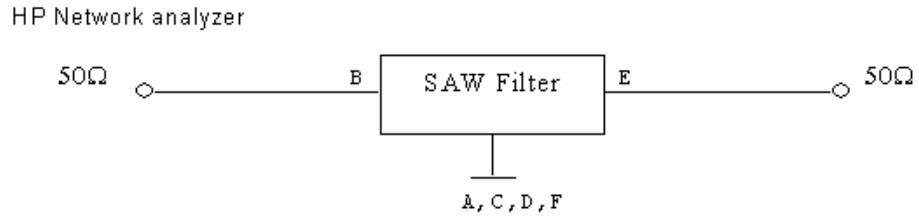
| Connection | Terminals |
|------------|------------|
| Input | 2 |
| Output | 5 |
| Ground | All others |

 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

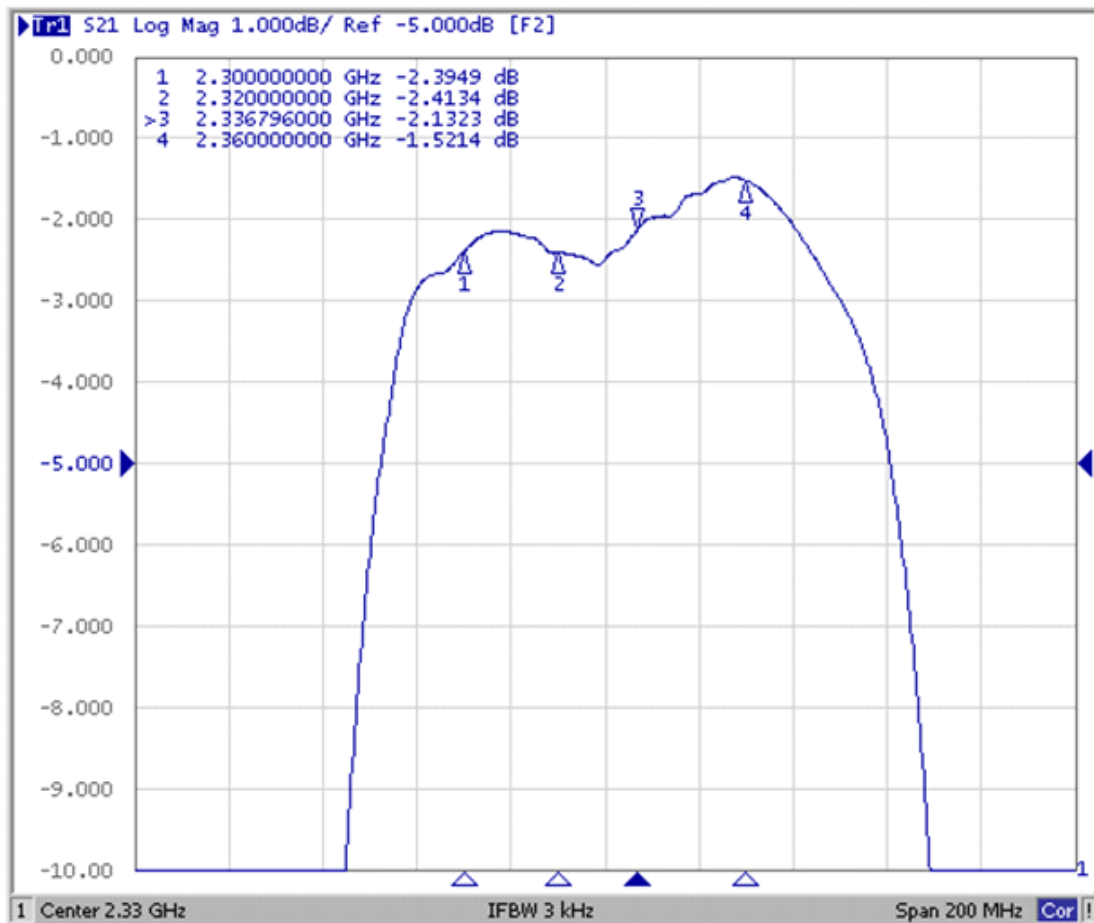
NOTES:

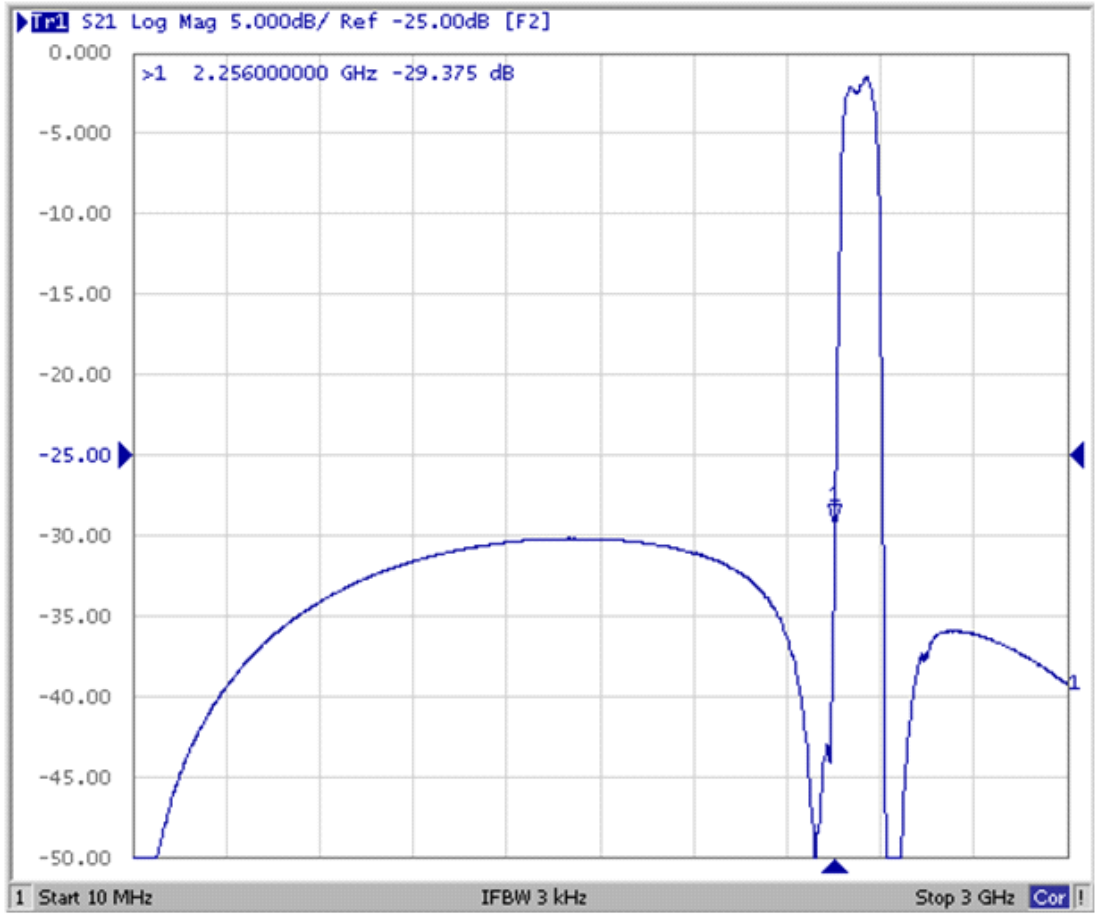
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Testing Environment

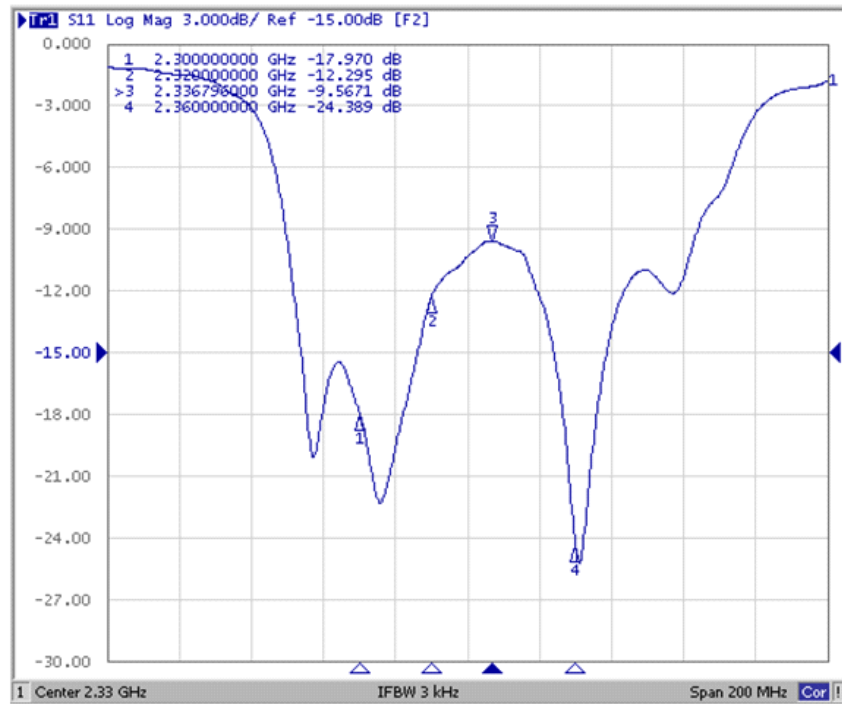


Frequency Response

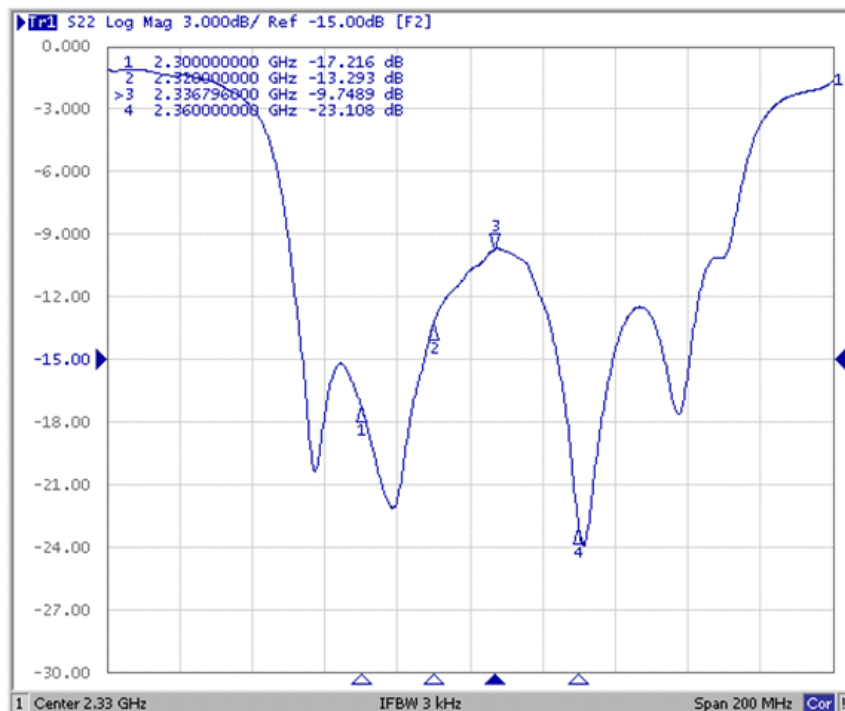




S11

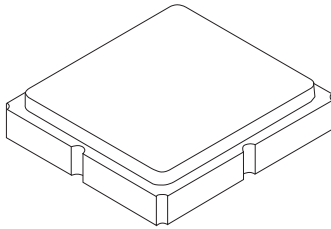


S22



SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint



PCB Footprint Top View

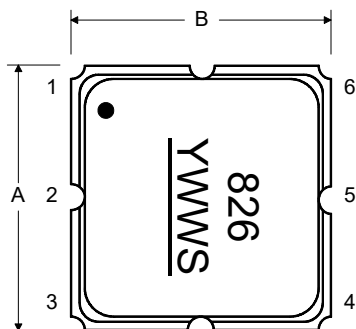
Case and PCB Footprint Dimensions

| Dimension | mm | | | Inches | | |
|-----------|------|------|------|--------|-------|-------|
| | Min | Nom | Max | Min | Nom | Max |
| A | 2.87 | 3.00 | 3.13 | 0.113 | 0.118 | 0.123 |
| B | 2.87 | 3.00 | 3.13 | 0.113 | 0.118 | 0.123 |
| C | 1.12 | 1.25 | 1.38 | 0.044 | 0.049 | 0.054 |
| D | 0.77 | 0.90 | 1.03 | 0.030 | 0.035 | 0.040 |
| E | 2.67 | 2.80 | 2.93 | 0.105 | 0.110 | 0.115 |
| F | 1.47 | 1.60 | 1.73 | 0.058 | 0.063 | 0.068 |
| G | 0.72 | 0.85 | 0.98 | 0.028 | 0.033 | 0.038 |
| H | 1.37 | 1.50 | 1.63 | 0.054 | 0.059 | 0.064 |
| I | 0.47 | 0.60 | 0.73 | 0.019 | 0.024 | 0.029 |
| J | 1.17 | 1.30 | 1.43 | 0.046 | 0.051 | 0.056 |
| K | | 3.20 | | | 0.126 | |
| L | | 1.70 | | | 0.067 | |
| M | | 1.05 | | | 0.041 | |
| N | | 0.81 | | | 0.032 | |
| O | | 0.38 | | | 0.015 | |

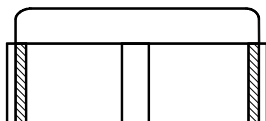
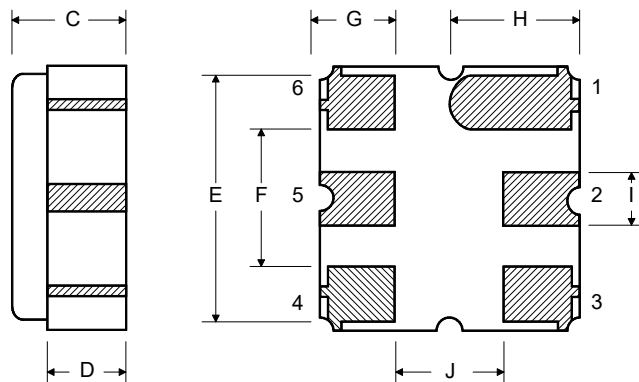
Case Materials

| Materials | |
|--------------------|--|
| Solder Pad Plating | 0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel |
| Lid Plating | 2.0 to 3.0 μm Nickel |
| Body | Al_2O_3 Ceramic |

TOP VIEW



BOTTOM VIEW



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180° for 60~90 seconds.
2. Ascending time to preheating temperature 150° shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C peak (10 seconds.)
4. Time: 5 times maximum

