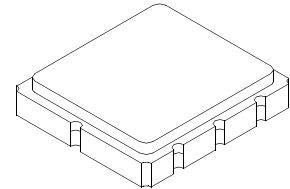


SF2437D

**480 MHz
SAW Filter**



SM3838-8

- **High Performance SAW Filter**
- **3.8 x 3.8 mm Surface-mount Package**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Absolute Maximum Ratings

| Rating | Value | Units |
|--|-------------------|-------|
| Maximum Incident Power in Passband | +10 | dBm |
| Maximum DC Voltage Between any Two Active Terminals | 3 | VDC |
| Operable Temperature Range | -45 to +125 | °C |
| Specification Temperature Range | -40 to +85 | °C |
| Storage Temperature Range | -40 to +95 | °C |
| Suitable for Lead-free Soldering - Maximum Soldering Profile | 260 °C for 10 sec | |

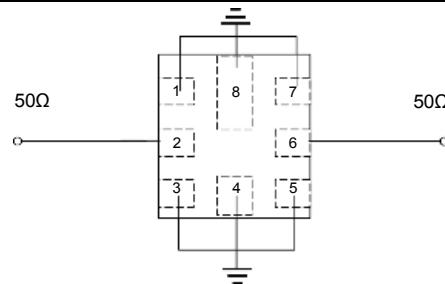
Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|--|-------|-------|-----|-----|-----|-------|
| Center Frequency | f_c | | | 480 | | MHz |
| Insertion Loss (470 to 482 MHz) (482 to 490 MHz) | ILmin | | | 2.4 | 3.5 | dB |
| | | | | 1.8 | 3.0 | |
| Amplitude Ripple (470 to 490 MHz) | | | | 1.9 | 2.5 | dB |
| Attenuation (Reference level from 0dB) 0 to 350 MHz 350 to 450 MHz 500 to 518 MHz 540 to 560 MHz 560 to 600 MHz | | | 40 | 45 | | dB |
| | | | 23 | 28 | | |
| | | | 34 | 40 | | |
| | | | 36 | 43 | | |
| | | | 36 | 39 | | |
| Temperature Coefficient of Frequency | | | | -36 | | ppm/k |

| | |
|--|--------------------------------|
| Case Style | 3.8 x 3.8 mm Nominal Footprint |
| Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator | B47, YWWS |

Electrical Connections

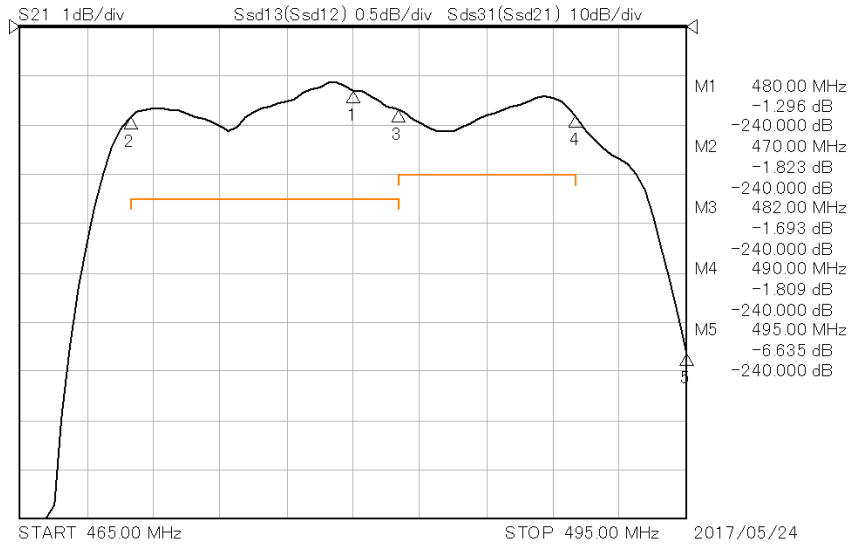
| Connection | Terminals |
|-------------|------------|
| Input | 2 |
| Output | 6 |
| Case Ground | All others |



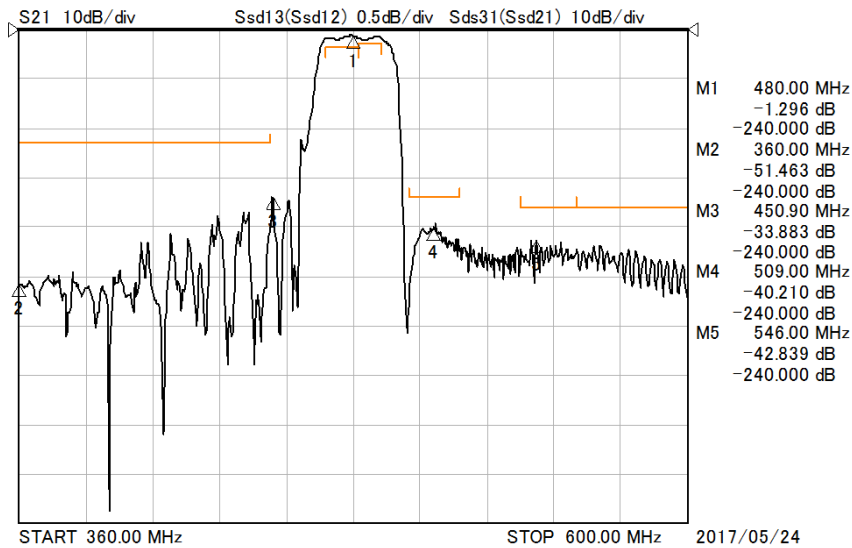
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**
NOTES:

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.

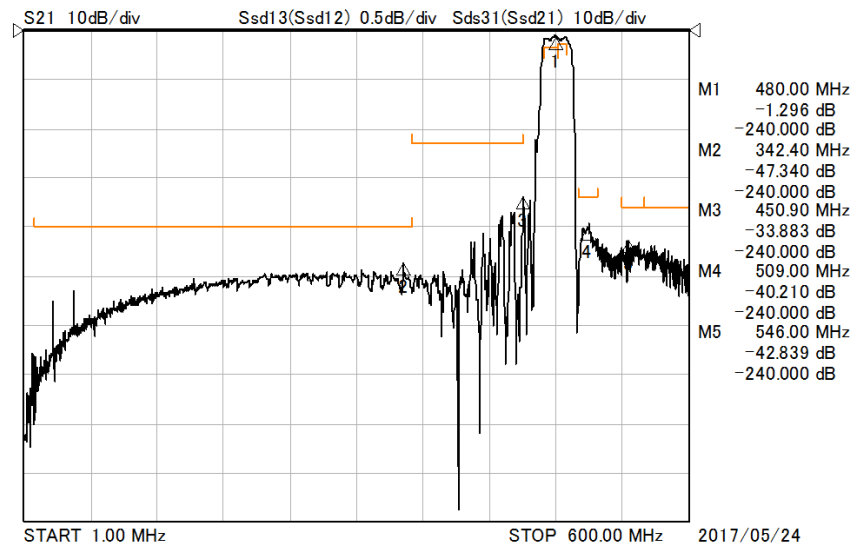
Frequency Characteristics



Format: LogMag REF: 0dB



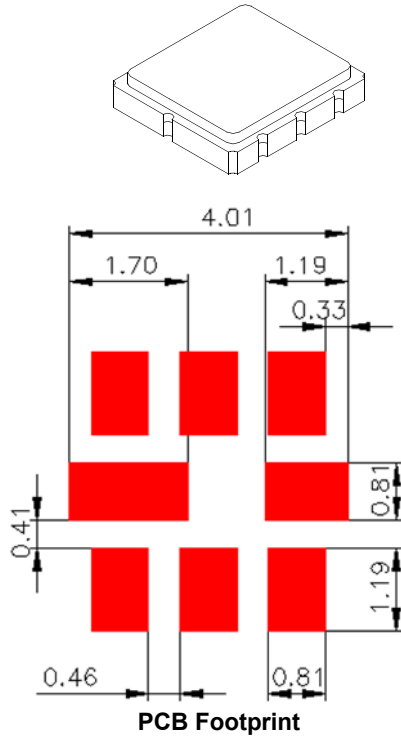
Format: LogMag REF: 0dB



SM3838-8 Case

8-Terminal Ceramic Surface-Mount Case 3.8 X 3.8mm Nominal Footprint

Case Dimensions

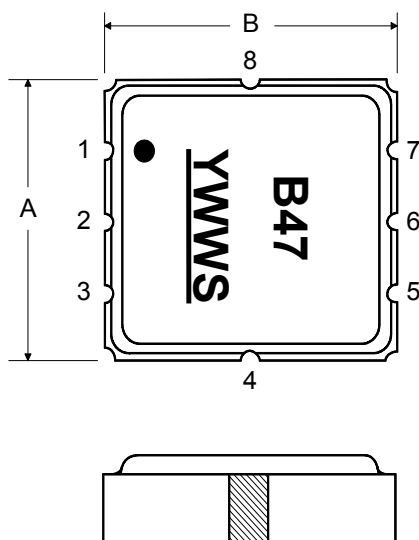


| Dimension | mm | | | Inches | | |
|-----------|------|------|------|--------|-------|-------|
| | Min | Nom | Max | Min | Nom | Max |
| A | 3.65 | 3.8 | 3.95 | 0.14 | 0.15 | 0.155 |
| B | 3.65 | 3.8 | 3.95 | 0.14 | 0.15 | 0.155 |
| C | - | - | 1.40 | - | - | 0.055 |
| D | - | 1.10 | - | - | 0.043 | - |
| E | - | 1.0 | - | - | 0.04 | - |
| F | - | 0.6 | - | - | 0.024 | - |
| G | - | 2.54 | - | - | 0.100 | - |
| H | - | 1.50 | - | - | 0.059 | - |

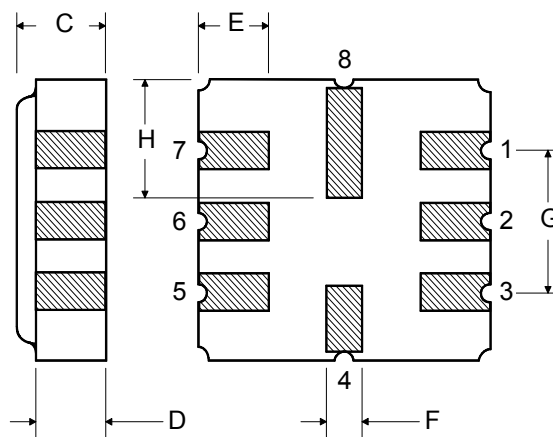
Case Materials

| 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°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

