# THE DATASHEET OF

# SF2433D

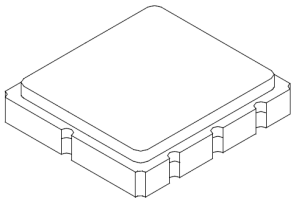
www.win-source.net 0086-755-83957316

A BRAND OF AKOUSTIS

# SF2433D

# 500 MHz SAW Filter

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



**SM3838-8**

### 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 +85 | °C |
| Suitable for Lead-free Soldering - Maximum Soldering Profile | 260 °C for 20 - 40 sec | |

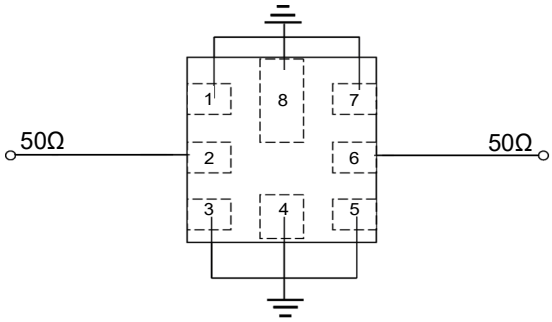
### Electrical Characteristics

| Characteristic | Sym | Notes | Min | Typ | Max | Units |
|---|---|---|---|---|---|---|
| Center Frequency | $f_C$ | | | 500 | | MHz |
| Insertion Loss | ILmin | | | 2.2 | 2.8 | dB |
| 2 dB Bandwidth | $BW_{-2dB}$ | | 20 | 24 | | MHz |
| Rejection referenced to IL at Peak: | | | | | | |
| 400 to 455 MHz | | | 40 | 55 | | dB |
| 514 to 535 MHz (-25 to +55°C) | | | 5 | 10 | | dB |
| 545 to 555 MHz | | | 30 | 55 | | dB |
| 555 to 600 MHz | | | 40 | 55 | | dB |
| Temperature Coefficient of Frequency | | | | -36 | | ppm/°C |

| | |
|---|---|
| Case Style | 3.8 x 3.8 mm Nominal Footprint |
| Lid Symbolization, Y=year, WW=week, S=shift, Dot=pin 1 indicator | B43, YWWS |

### Electrical Connections

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




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

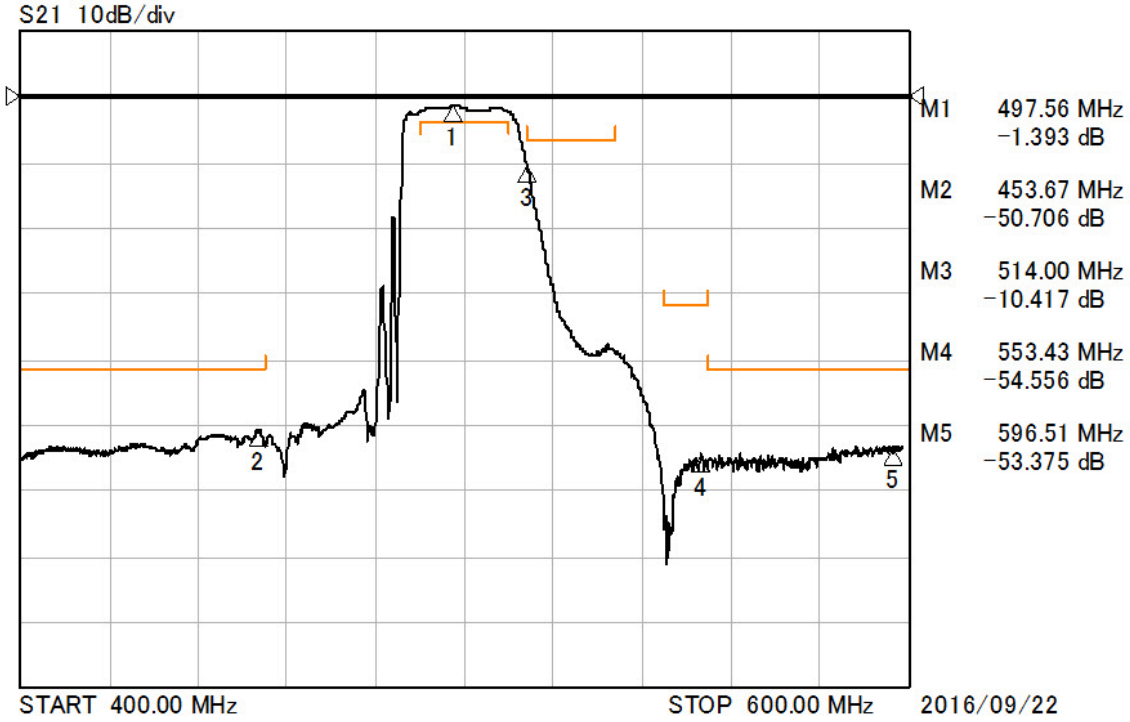
**NOTES:**

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.

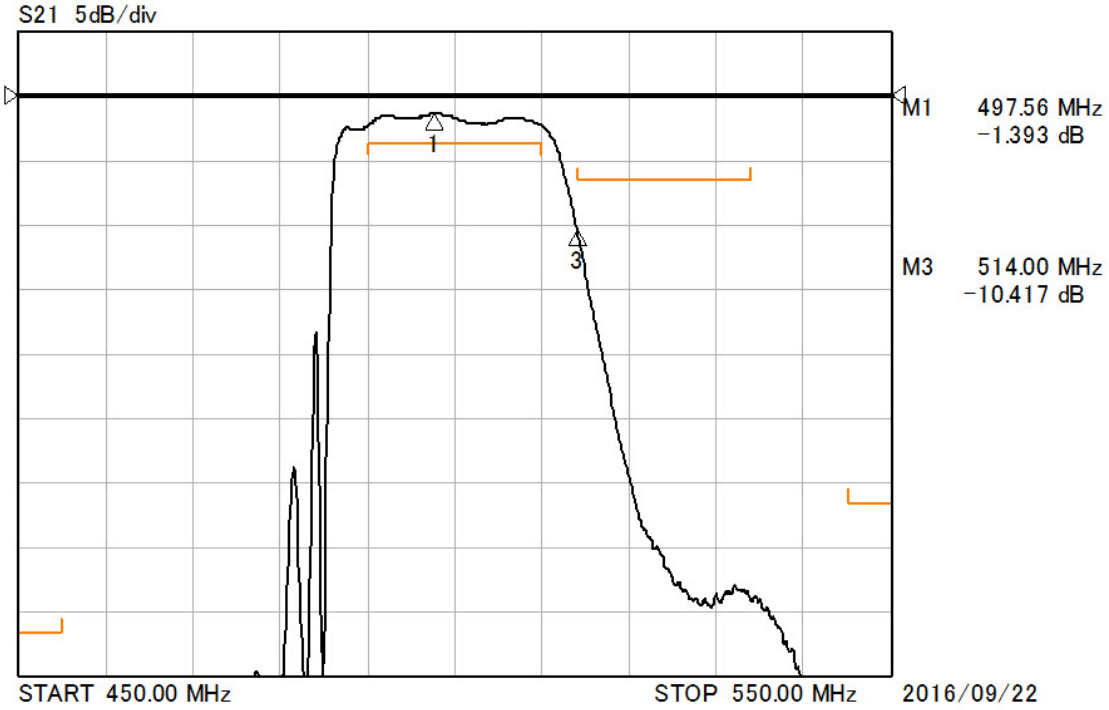
Copyright © RFM Integrated Device, Inc.

## Frequency Characteristics

### Span: 200 MHz



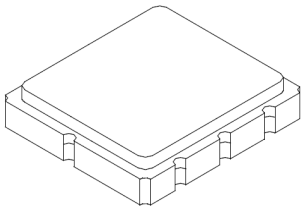

### Span: 100 MHz

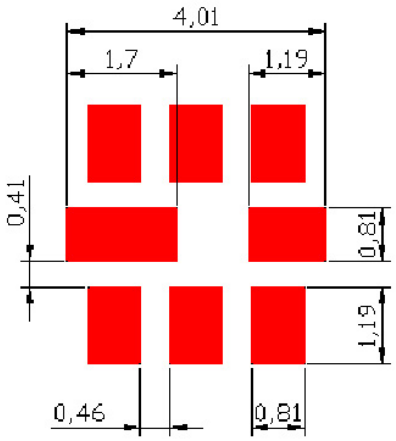



Copyright © RFM Integrated Device, Inc.

# SM3838-8 Case

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






**PCB Footprint**

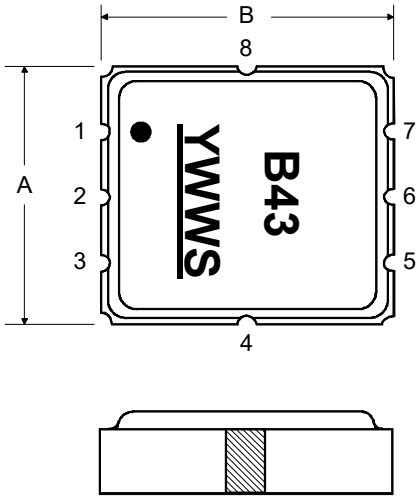
**Case Dimensions**

| 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 | - |

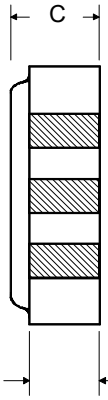
## Case Materials

| 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 |

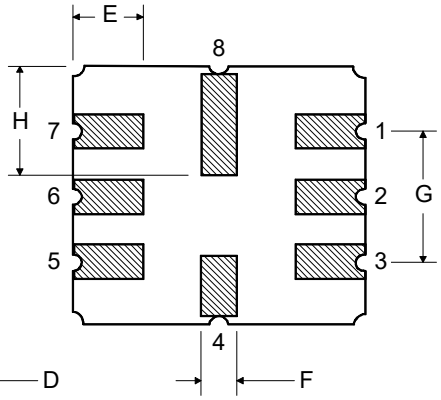
TOP VIEW





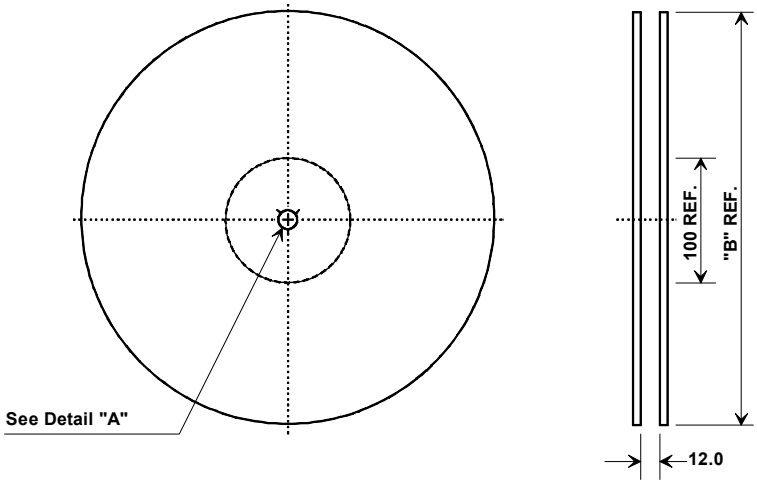

BOTTOM VIEW



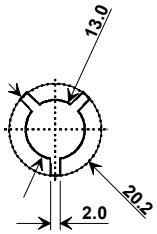

Copyright © RFM Integrated Device, Inc.

## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA-481

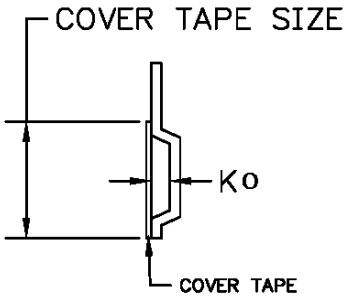


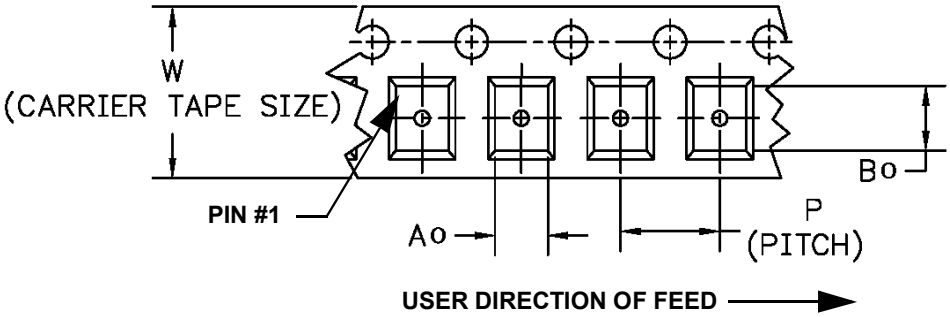

| "B" Nominal Size | | Quantity Per Reel |
|---|---|---|
| Inches | millimeters | |
| 7 | 178 | 500 |
| 13 | 330 | 3000 |




**COMPONENT ORIENTATION and DIMENSIONS**

| Carrier Tape Dimensions | |
|---|---|
| Ao | 4.25 mm |
| Bo | 4.25 mm |
| Ko | 1.3 mm |
| Pitch | 8.0 mm |
| W | 12.0 mm |

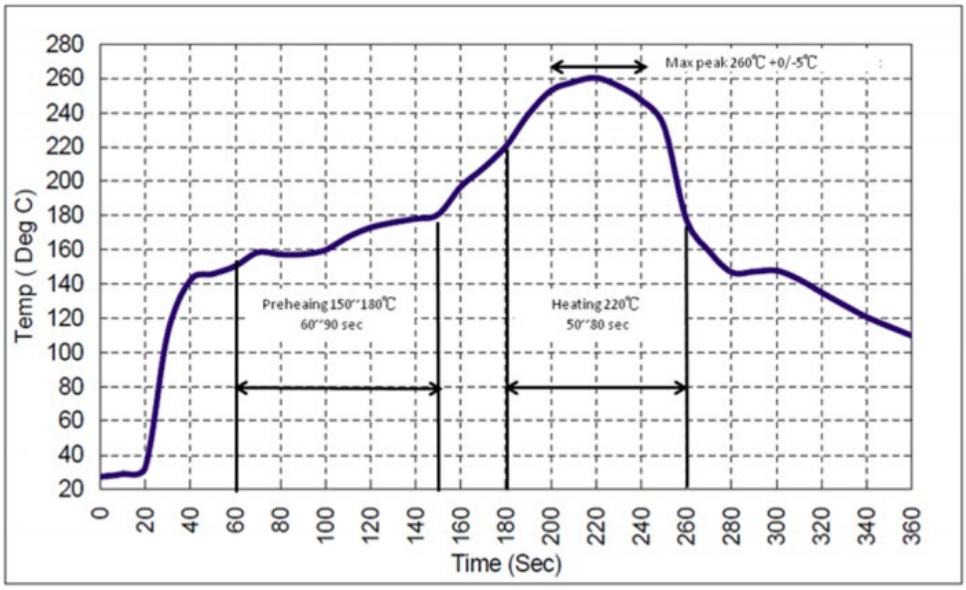



Copyright © RFM Integrated Device, Inc.

## Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.




Copyright © RFM Integrated Device, Inc.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View SF2433D on WIN SOURCE
- RF Monolithics, Inc Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management