

SMD 315.0MHz SAW Filter

AFS315E

Moisture Sensitivity Level (MSL) = 1



RoHS / RoHS II Compliant



5.0 x 5.0 x 1.35 mm

FEATURES:

- Low Insertion Loss 3.0dB typical
- Compact SMD package 5.0 x 5.0 x 1.35mm
- Suitable for RoHS compliant reflow

APPLICATIONS:

- Wireless car alarm, Garage door opener, RKE
- Mobile Communications systems
- Remote controller
- RF receiver

STANDARD SPECIFICATIONS:

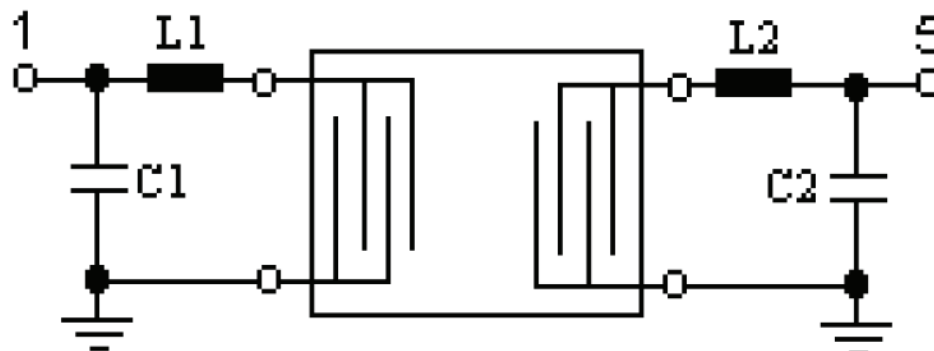
Maximum Ratings

| Item | Value |
|-----------------------------|----------------|
| Operating Temperature Range | -35°C to +85°C |
| Storage Temperature Range | -40°C to +85°C |
| DC Voltage | 12V |
| Input Power Level | 10dBm |

Electrical Characteristics

| Parameters | | Minimum | Typical | Maximum | Units | Notes |
|------------------------------------|---|---------|----------------|---------|--------|-------|
| Center Frequency (F _c) | | | 315.0 | | MHz | |
| Insertion Loss (IL) | | | 3.0 | 5.5 | dB | |
| 3dB Bandwidth | | | 600 | | kHz | |
| Rejection | F _c – 21.4MHz | 40 | 50 | | dB | |
| | F _c – 10.7MHz | 15 | 30 | | | |
| | Ultimate | | 80 | | | |
| Temperature | Turnover Temperature (T _O) | 24 | 39 | 54 | °C | |
| | Turnover Frequency (F _O) | | F _c | | MHz | |
| | Frequency Temperature Coefficient (FTC) | | 0.032 | | ppm/°C | |
| Frequency Aging F _A | | | 10 | | ppm/yr | |

TEST CIRCUIT



$$C1 = 13\text{pF}, L1 = 80\text{nH}, L2 = 80\text{nH}, C2 = 13\text{pF}$$



SMD 315.0MHz SAW Filter

AFS315E

Moisture Sensitivity Level (MSL) = 1

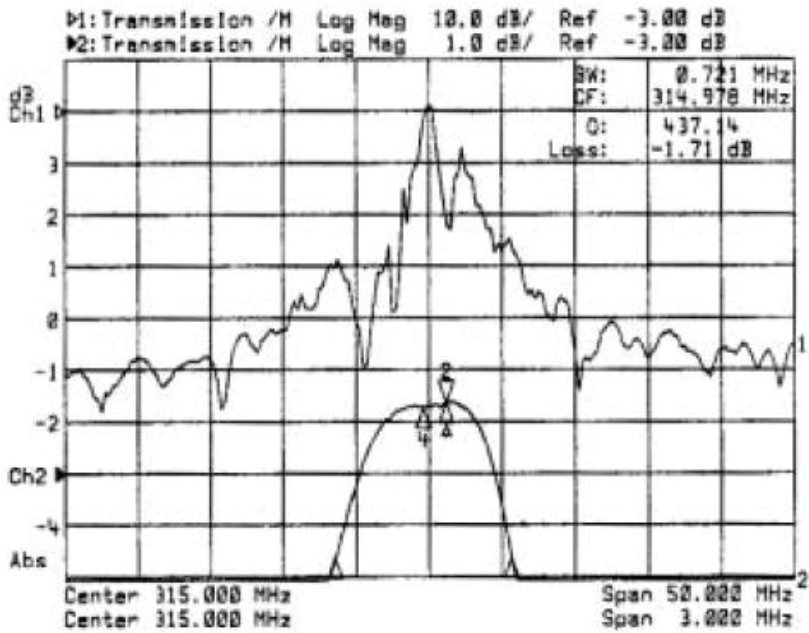


RoHS / RoHS II Compliant

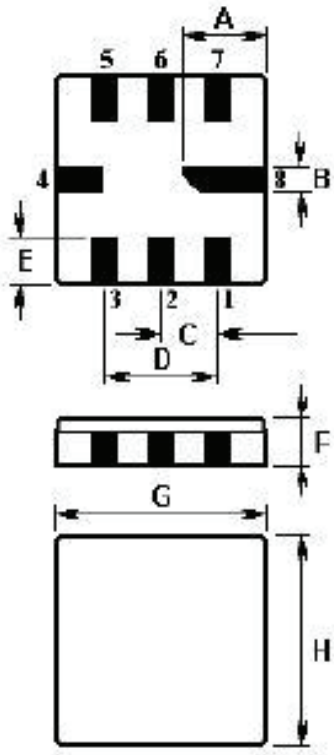


5.0 x 5.0 x 1.35 mm

FREQUENCY CHARACTERISTICS

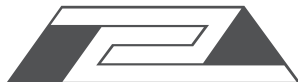


OUTLINE DIMENSION:



| Sign | Dimensions (mm) |
|------|-----------------|
| A | 2.08 |
| B | 0.60 |
| C | 1.27 |
| D | 2.54 |
| E | 1.20 |
| F | 1.35 |
| G | 5.00 |
| H | 5.00 |

| PIN NO. | FUNCTION |
|---------|------------|
| 1 | Input |
| 2 | Input GND |
| 5 | Output |
| 6 | Output GND |
| 3, 7 | GND |
| 4, 8 | Case GND |



SMD 315.0MHz SAW Filter

AFS315E

Moisture Sensitivity Level (MSL) = 1

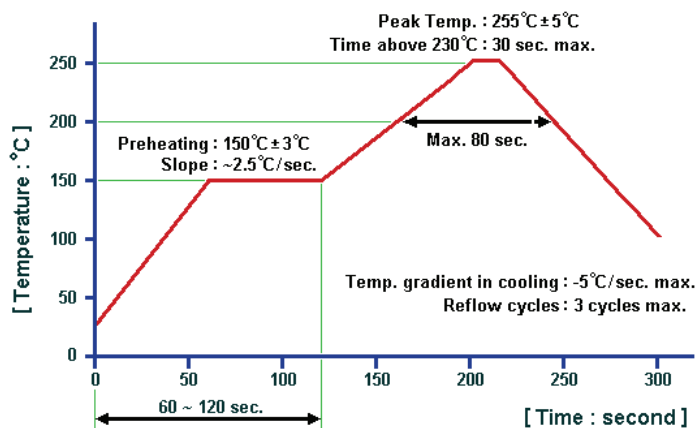


RoHS / RoHS II Compliant



5.0 x 5.0 x 1.35 mm

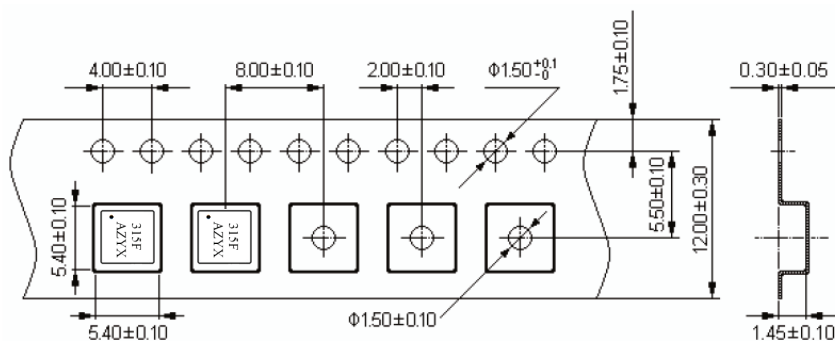
➤ **REFLOW PROFILE:**



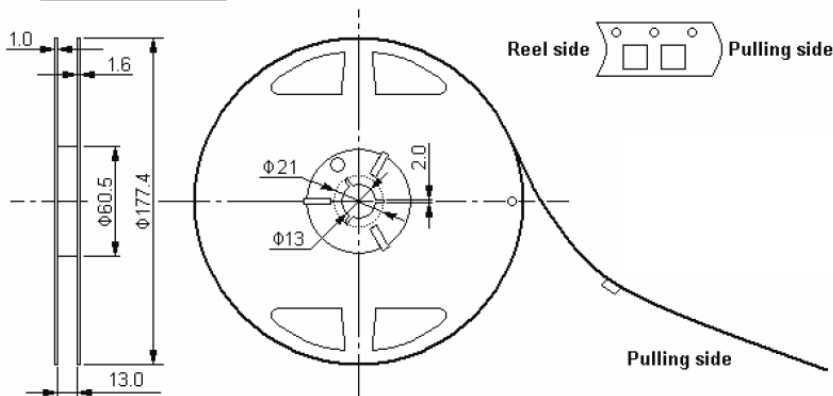
➤ **TAPE & REEL:**

T=Tape & Reel (1,000pcs/reel)

Carrier Tape



Reel Dimensions



ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

