

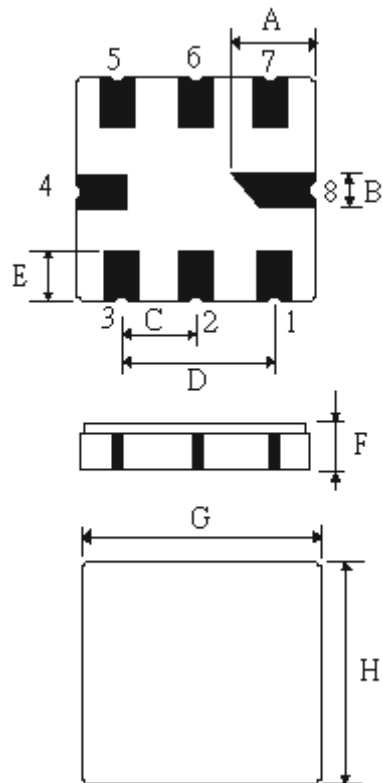
SPECIFICATION OF SAW FILTER

YOKETAN CORP.

Spec no: SM5050F-08683-001-NJ-A

1. Type : SM5050 (Lead Free Parts)

2. Product Dimension



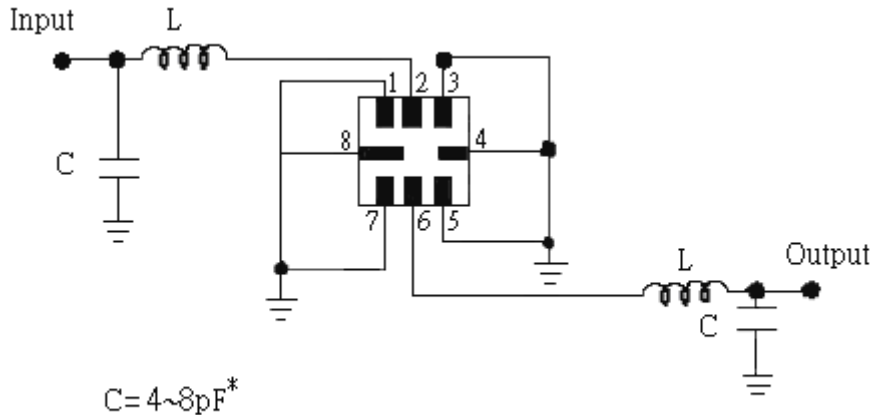
| Pin | Connection |
|-----|---------------|
| 2 | Input |
| 1 | Input-ground |
| 6 | Output |
| 5 | Output-ground |
| 3,7 | To be Ground |
| 4,8 | Case Ground |

| Sign | Data (unit:mm) | Sign | Data(unit:mm) |
|------|----------------|------|---------------|
| A | 2.08±0.15 | E | 1.2±0.15 |
| B | 0.60±0.1 | F | 1.35±0.15 |
| C | 1.27±0.1 | G | 5.0±0.2 |
| D | 2.54±0.1 | H | 5.0±0.2 |

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3. Test Circuit



$$C = 4 \sim 8 \text{pF}^*$$

$L = 2$ turns of 0.5mm insulated copper, 3.0 ID(nH)

4. Performance

4-1. Maximum Ratings

| Rating | Value | Units |
|---------------------------|------------|-------|
| Input Power Level | 10 | dBm |
| DC Voltage | 12V | VDC |
| Storage Temperature Range | -40 to +85 | |
| Soldering Temperature | +235 | |

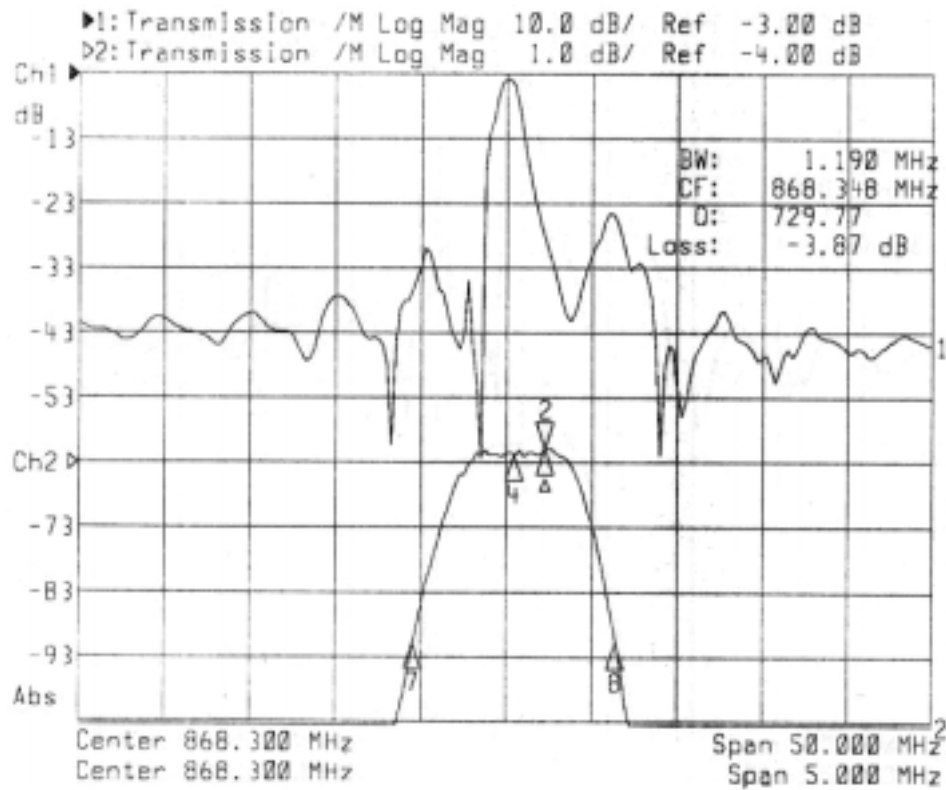
4-2. Electronic Characteristics

| Item | | Min. | Typ. | Max.. | Units |
|---|-----------------------------------|------|--------|-------|--------|
| Center Frequency f_c (center frequency between 3dB points) | | | 868.30 | | MHz |
| Insertion Loss I_L | | -- | 4.0 | 5.5 | dB |
| 3dB Pass band BW_3 | | | 1.2 | 1.5 | MHz |
| Rejection | at $f_c - 21.4\text{MHz}$ (Image) | 30 | 40 | -- | dB |
| | at $f_c - 10.7\text{MHz}$ (LO) | 15 | 30 | -- | |
| | Ultimate | -- | 60 | -- | |
| Temperature | Operating Case Temperature | -40 | | +85 | |
| | Turnover Temperature T_o | 25 | 40 | 55 | |
| | Turnover Frequency f_o | | f_c | | MHz |
| | Frequency Temperature Coefficient | | 0.032 | | ppm/ |
| Frequency Aging Absolute Value during the | | | 10 | | ppm/yr |

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5. Frequency Response



6 Notice

Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with $VSWR \leq 1.2:1$. The test fixture L and C are adjusted for minimum insertion loss at the filter center frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.