- ***Ideal for Wireless Audio Applications in 869.00 MHz***
- ***Low-Loss, Coupled-Resonator Quartz Design***
- ***Simple External Impedance Matching***
- ***Rugged, Hermetic, Low Profile F-11 Package***
- ***Complies with Directive 2002/95/EC (RoHS Compliant)***

# SF869C

| Absolute Maximum Rating (Ta=25°C) | | | |
|---|---|---|---|
| Parameter | | Rating | Unit |
| CW RF Power Dissipation | $P$ | 0 | dBm |
| DC Voltage VDC Between Any Two Pins | $V_{DC}$ | ±10 | V |
| Operating Temperature Range | $T_A$ | -10 ~ +60 | °C |
| Storage Temperature Range | $T_{stg}$ | -40 ~ +85 | °C |

| Electronic Characteristics | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | | Sym | Minimum | Typical | Maximum | Unit |
| Nominal Frequency (at 25°C)<br>(Center frequency between 3dB point) | | $f_C$ | NS | 869.00 | NS | MHz |
| Insertion Loss | 868.00 … 870.00 MHz | $IL$ | - | 4.5 | - | dB |
| Amplitude Ripple (p-p) | 868.00 … 870.00 MHz | $\Delta\alpha$ | - | 1.5 | - | dB |
| Absolute Attenuation | | | | | | |
| | 825.00 … 828.00 MHz | $\alpha_{rel}$ | 40 | - | - | dB |
| | 845.00 … 849.00 MHz | | 35 | - | - | dB |
| | 889.00 … 892.00 MHz | | 35 | - | - | dB |
| | 910.00 … 913.00 MHz | | 40 | - | - | dB |
| Frequency Aging | Absolute Value during the First Year | $\|f_A\|$ | - | - | 10 | ppm/yr |
| DC Insulation Resistance Between any Two Pins | | - | 1.0 | - | - | MΩ |
| Input / Output Impendance (nominal) | | - | - | 50 | - | Ω |

NS = Not Specified

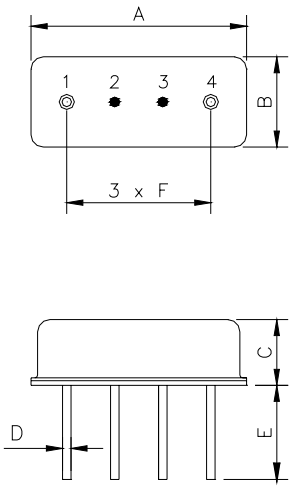
**Notes:**

1. The frequency $f_C$ is defined as the midpoint between the 3dB frequencies.
2. 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 ≤ 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.
3. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
4. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
5. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
6. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
7. For questions on technology, prices and delivery please contact our sales offices or email to sales@vanlong.com.

Phone: +86 (10) 5820-3910 Fax: +86 (10) 5820-3915 Email: sales@vanlong.com Web: http://www.vanlong.com

© 2007 by Vanlong Technology Co., Ltd.

## Package Dimensions (F-11)




### Electrical Connections

| Terminals | Connection |
|---|---|
| 1 | Input/Output |
| 2 | Case Ground |
| 3 | Case Ground |
| 4 | Output/Input |

### Package Dimensions

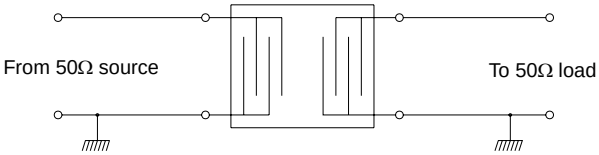
| Dimensions | Nom. (mm) | Tol. (mm) |
|---|---|---|
| A | 11.0 | ±0.3 |
| B | 4.5 | ±0.3 |
| C | 3.2 | ±0.3 |
| D | 0.45 | ±0.1 |
| E | 5.0 | ±0.5 |
| F | 2.54 | ±0.2 |

## Marking

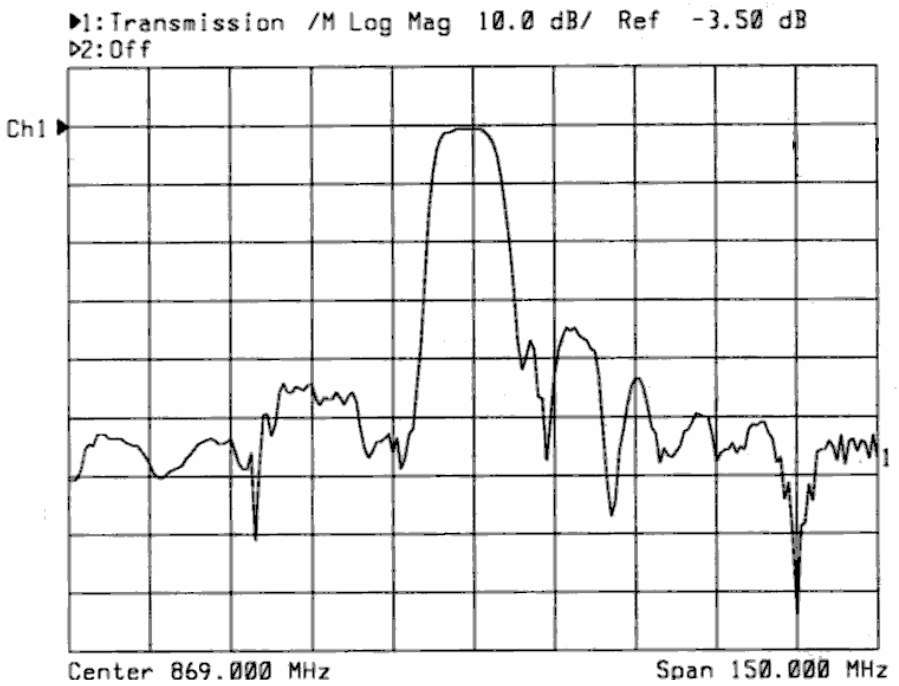
**SF869C**

Ink Marking
Color: Black or Blue

## Test Circuit




## Typical Frequency Response




Phone: +86 (10) 5820-3910 Fax: +86 (10) 5820-3915 Email: sales@vanlong.com Web: http://www.vanlong.com

© 2007 by Vanlong Technology Co., Ltd.