

- **Designed to Band Pass in 868.30 MHz**
- **Low-Loss, Coupled-Resonator Quartz Design**
- **Simple External Impedance Matching**
- **Ultra Miniature Ceramic QCC8C SMD Package**

# SF5902

Absolute Maximum Rating (Ta=25°C)		
Parameter	Rating	Unit
Input Power Level	$P_{in}$	10
DC Voltage VDC Between Any Two Pins	$V_{dc}$	12
Operating Temperature Range	$T_A$	-10 ~ +60
Storage Temperature Range	$T_{stg}$	-40 ~ +85

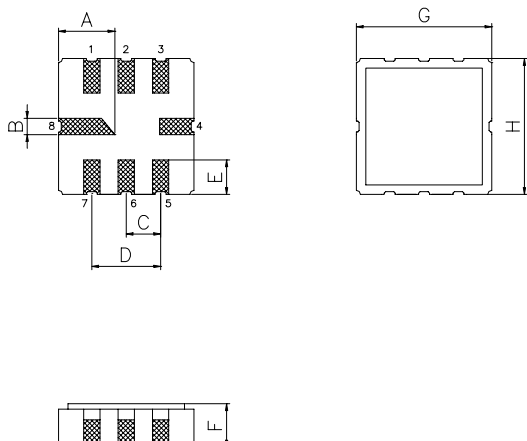
Electronic Characteristics					
Parameter	Sym	Minimum	Typical	Maximum	Unit
Nominal Frequency (at 25°C) (Center frequency between 3dB point)	$f_c$	NS	868.30	NS	MHz
Insertion Loss Attenuation 855.30 ... 881.30 MHz	$IL$	-	3.5	5.0	dB
3dB Bandwidth	$BW_3$	-	36.0	-	MHz
Passband Ripple 863.00 ... 865.00 MHz	$\Delta\alpha$	-	1.5	-	dB
Absolute Attenuation					
DC ... 753.30 MHz	$\alpha_{rel}$	25	27	-	dB
753.30 ... 833.30 MHz		30	35	-	dB
903.30 ... 1033.30 MHz		30	40	-	dB
1033.30 ... 1953.30 MHz		20	25	-	dB
Frequency Aging Absolute Value during the First Year	$ fA $	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins	-	1.0	-	-	MΩ
Input / Output Impedance (nominal)	-	-	50	-	Ω

NS = Not Specified

### Notes:

- The frequency  $f_c$  is defined as the midpoint between the 3dB frequencies.
- 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.
- Unless noted otherwise, specifications apply over the entire specified operating temperature range.
- The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
- All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
- 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.
- For questions on technology, prices and delivery please contact our sales offices or e-mail sales@vanlong.com.

Package Dimensions (QCC8C)



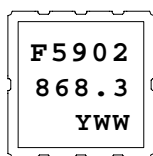
Electrical Connections

Terminals	Connection
1	Input Ground
2	Input
5	Output Ground
6	Output
3,7	To be Grounded
4,8	Case Ground

Package Dimensions

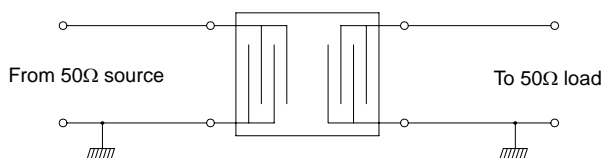
Dimensions	Nom (mm)	Dimensions	Nom (mm)
A	2.08	E	1.20
B	0.60	F	1.35
C	1.27	G	5.00
D	2.54	H	5.00

Marking



1. F5902 - Part Code
2. Frequency (MHz) in 5 digits
3. Date Code:  
 Y : Last digit of year  
 WW : Week No.

Test Circuit



Typical Frequency Response

