

- Designed to Provide Front-end selectivity in 315.00 MHz
- Low-Loss, Coupled-Resonator Quartz Design
- Simple External Impedance Matching
- Rugged, Hermetic, Low Profile TO-39 Package

SF315

Absolute Maximum Rating (Ta=25°C)							
Parameter		Rating	Unit				
CW RF Power Dissipation	Р	+10	dBm				
DC Voltage VDC Between Any Two Pins	$V_{ m DC}$	±30	V				
Operating Temperature Range	T _A	-10 ~ +60	°C				
Storage Temperature Range	$T_{ m stg}$	-40 ~ +85	°C				

Electronic Characteristics						
Parameter		Sym	Minimum	Typical	Maximum	Unit
Nominal Frequency (at 25°C) (Center frequency between 3dB point)		f _C	NS	315.00	NS	MHz
Insertion Loss		IL	-	3.0	4.5	dB
3dB Passband		BW ₃	-	600	800	KHz
Rejection	at f _C - 21.4 MHz (Image)	-	40	50	-	dB
	at f _C - 10.7 MHz (LO)	-	20	30	-	dB
	Ultimate	-	-	60	-	dB
Temperature Stability	Operating Temperature Range	T _C	-10	-	+60	°C
	Turnover Temperature	To	25	-	55	°C
	Turnover Frequency	f _O	-	f _C	-	MHz
	Frequency Temperature Coefficient	FTC	-	0.032	-	ppm/C ²
Frequency Aging Absolute Value during the First Year		fA	-	-	10	ppm/yr
DC Insulation Resistance Between any Two Pins		-	1.0	-	-	MΩ

NS = Not Specified

Notes:

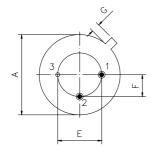
- The frequency f_C is defined as the midpoint between the 3dB frequencies.
- 2. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR ≤ 1.2:1. The test fixture L and C are adjusted for minimum insertion 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.
- Unless noted otherwise, specifications apply over the entire specified operating temperature range.
- 4. Frequency aging is the change in f_C with time and is specified at +65°C or less. Aging may exceed the specification for prolonged temperatures above +65°C. Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.

- Turnover temperature, T₀, is the temperature of maximum (or turnover) frequency, f₀. The nominal frequency at any case temperature, T_C, may be calculated from: f = f₀ [1 - FTC (T₀ - T_C)²].
- 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 email to sales@vanlong.com.



Package Dimensions (TO-39)





Electrical Connections

Terminals	Connection	
1	Input/Output	
2	Output/Input	
3	Case Ground	

Package Dimensions

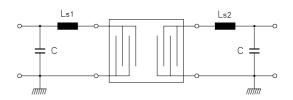
Dimensions	Nom. (mm)	Tol. (mm)	
А	9.35	±0.10	
В	3.40	±0.10	
С	3.00	±0.20	
D	0.45	±0.10	
Е	5.08	±0.10	
F	2.54	±0.20	
G	0.45		

Marking



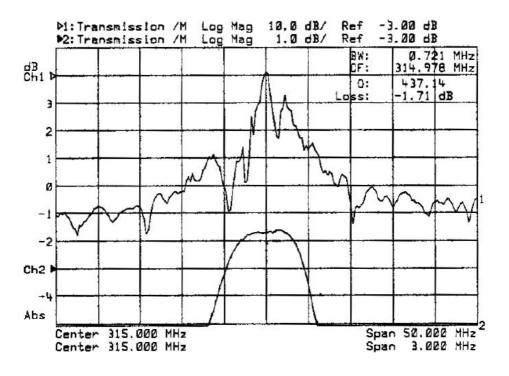
Ink Marking Color: Black or Blue

Test Circuit



C = 13 pF* Ls1 = Ls2 = 80 nH

Typical Frequency Response



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