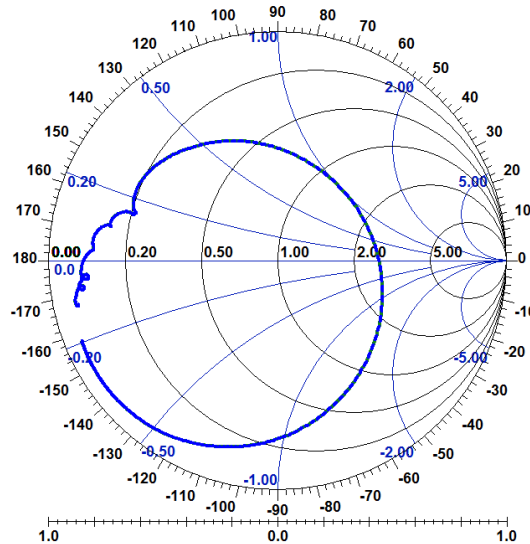


SS2452BB3 Temperature sensor (1-port Resonator)

This product is lead-free in compliance with RoHs 2011/65/EU.

Typical performance: S11 @ 23°C



Test Conditions:

RF power	-10 dBm
Temperature	23.0 °C
DC Voltage	0 V
Terminating source impedance (Z_S):	50 Ω
Terminating load impedance (Z_L):	50 Ω

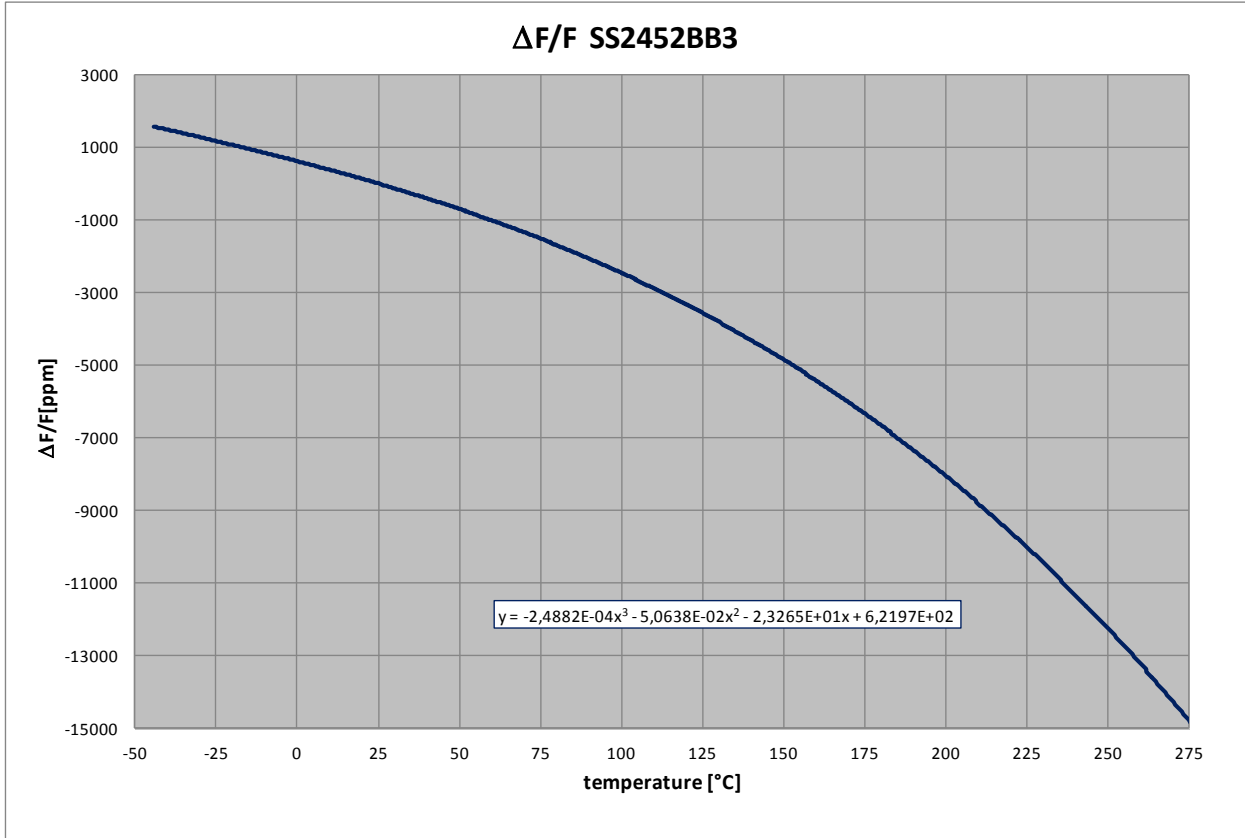
		min	typical	max	unit
Nominal frequency * ¹	F_n	2449.40	2450.10	2450.80	MHz
Unloaded quality factor	Q_U	5500	6800		
Ageing @200°C				1.2	K/1000h
Equivalent Circuit elements					
Motional capacitance	C_1		7.212		fF
Motional inductance	L_1		585.87		nH
Motional resistance	R_1		1.33		Ω
serial resistance	R_0		1.9		Ω
Parallel capacitance	C_0		5.0		pF
Operating temperature range		-40		275	°C
Temperature coefficient of frequency	TC_F				
	α		$-2.49 \cdot 10^{-4}$		ppm/K ³
	β		$-5.06 \cdot 10^{-2}$		ppm/K ²
	γ		-2.32		ppm/K
	δ		622		ppm

Electrostatic Sensitive Device

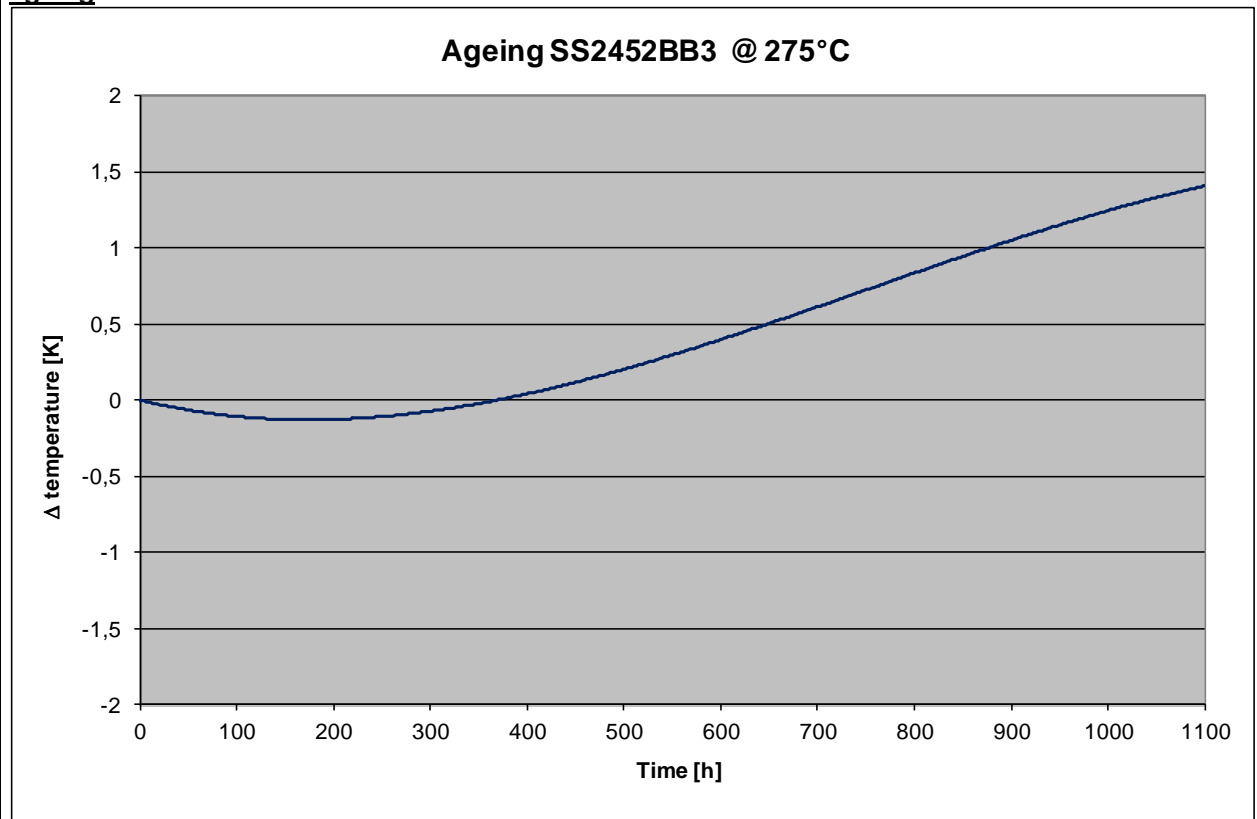
*¹ Nominal frequency is defined as maximum impedance.

Temperature coefficient of frequency

$$\Delta F/F_n = \alpha * T^3 + \beta * T^2 + \gamma * T + \delta \text{ with } T \text{ in } ^\circ\text{C}$$

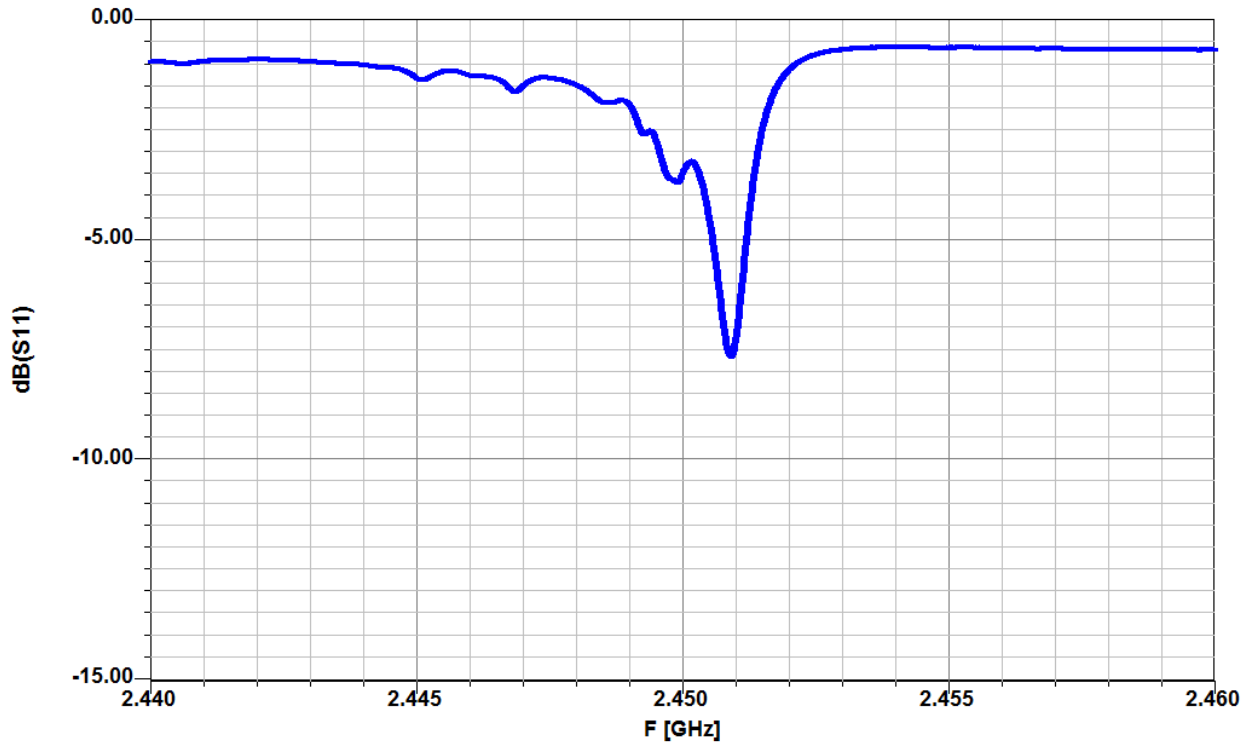


ageing

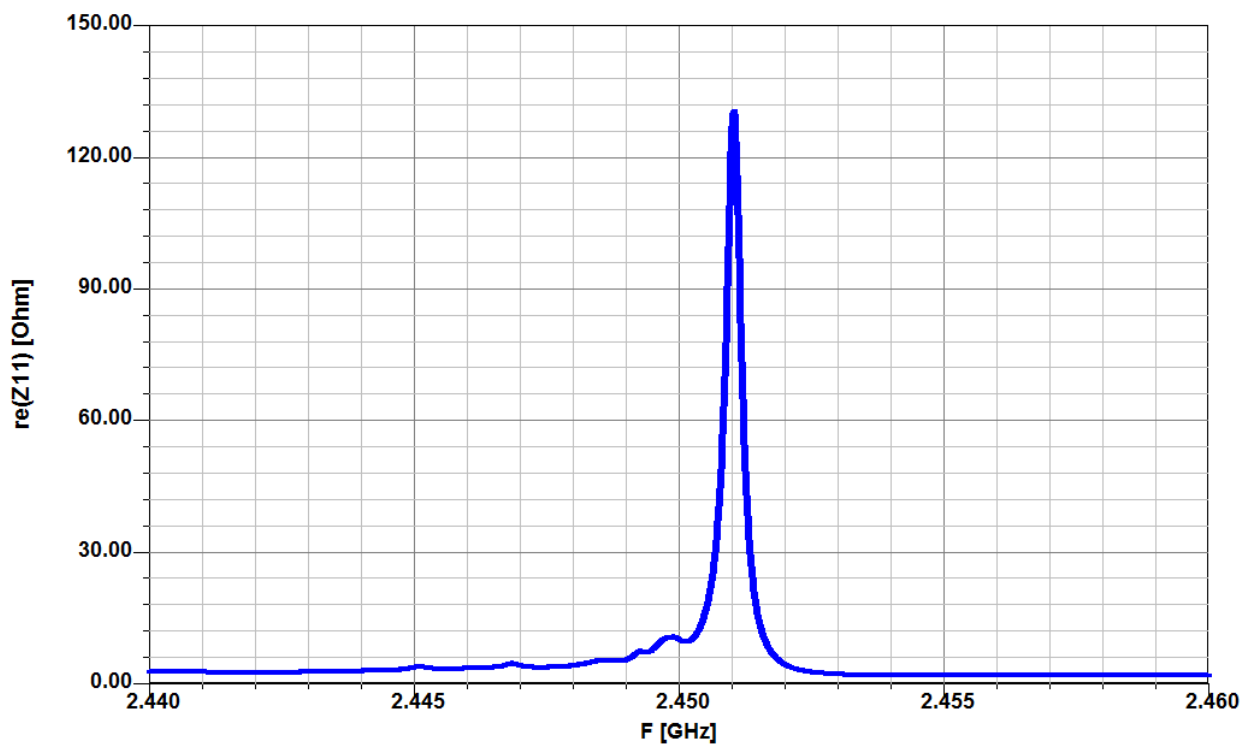


Typical performance:

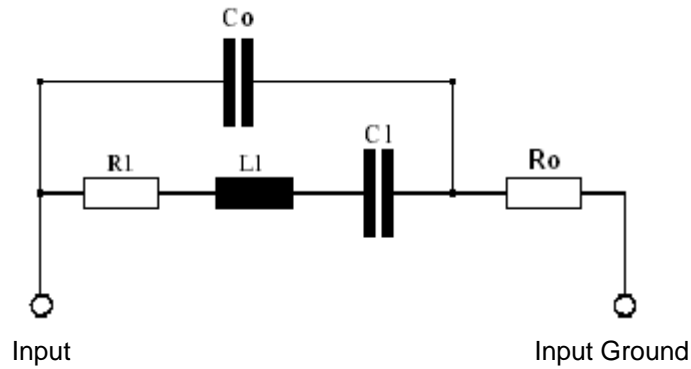
Magnitude:



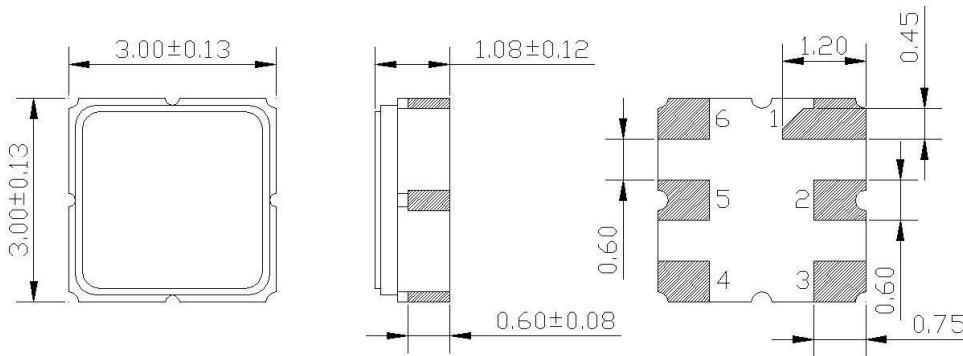
Impedance :



Equivalent Circuit



Package: S25 / 3.0*3.0mm²



All dimensions in mm

Pin 1	Case ground	Pin 6	not connected
Pin 2	Antenna (Input/Ground)	Pin 5	Antenna (Ground/Input)
Pin 3	not connected	Pin 4	Case ground

Marking

S...	Type
XXZZLL	Date code
XX	Year
ZZ	Calendar week
LL	Lot Number

