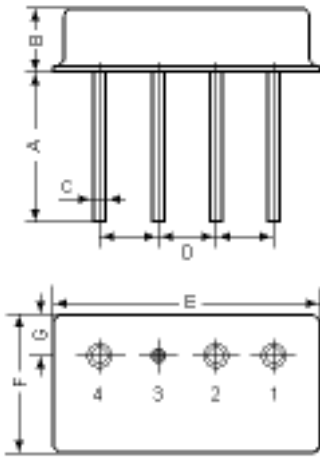




The VT3/4N is a true one-port, surface-acoustic-wave (SAW) resonator in a low-profile SF712 case that applies to the US channel RF modulator.

1.Package Dimension (SF712)



Pins	Configuration
1	3CH
2	4CH
3	Case Ground
4	Common

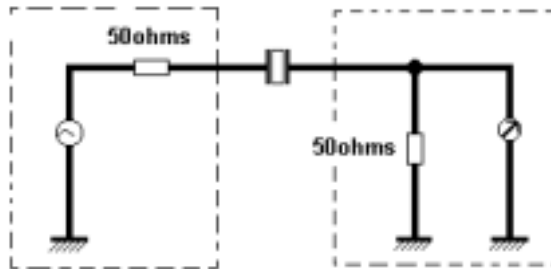
Sign	Data (unit: mm)	Sign	Data (unit :mm)
A	5.0/8.0	E	12.0
B	3.5	F	7.2
C	0.5	G	2.0
D	2.54		

2.Marking

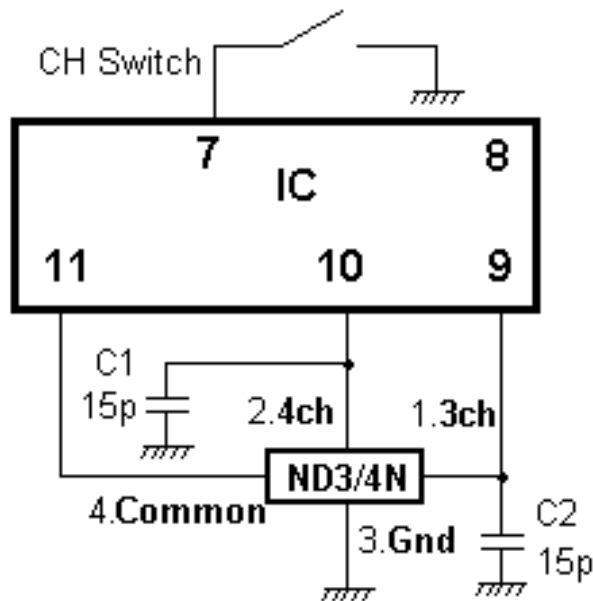
VT3/4N

Color: Black or Blue

3 Measuring Circuit for Resonant Loss



4.Typical Application Circuit



## 5.Performance

## 5-1.Electrical Characteristics

Reference temperature shall be 25±2 .

Item		Specification	Remarks
Resonant Frequency	3ch	61.24±0.08MHz	Measured by HP8711A
	4ch	67.24±0.08MHz	
Resonator Loss	3ch	3.8 dB Typical 5.0 dB Max	
	4ch		
Parallel Capacitance	3ch	4.5±1.0 pF	Measured by LCR Meter HP4275A
	4ch		
Temp Coef. for Frequency		±8 ppm/ Max	-10 to +60

## 5-2.Maximum Rating

## 5-3

Item	Terminals to Measure	Maximum rating	Remarks
DC Voltage	3ch – Common 4ch – Common	10V 10V	
Pulse Impressing	Between each terminal	10V	1/60 sec. Max
AC Voltage	Between each terminal	10Vp-p	Commercial Frequency
Operation Temp.		-10 to +60	
Storage Temp.		-40 to +80	
Level	3ch- common 4ch- common	0.2mW (P <sub>osc</sub> =I Re)	I: Oscillation Current Re: Oscillation Imp

## Environmental Characteristics

Item	Condition	Judgment
High Temperature Storage	80 for 500 hours	Kept in the room temperature and normal humidity for 1 hour
Low Temperature Storage	-40 for 500 hours	
Moisture Load	6 VDC among 3ch,4ch and Common pins. 40 and 90 RH for 500 hours	
Pressure Cook	2 atm,120 and 97 RH for 96 hours	Resonator Frequency Shift   fr   45kHz
Temperature Cycle	5 cycles (1 cycles:-20 for 0.5 hour then 70 for 0.5 hour)	Resonator Loss After test Ar 6.0dB
Resistance to Soldering Heat	Dipping terminals into Methanol than 1.6mm from the stem. 260 for 10seconds	

## 5-4. Mechanical Characteristics

Item	Condition	Judgment
Vibration	Vibration of 1000 rpm, amplitude 1.5mm X, Y, Z, directions for 1 hour	Kept in the room temperature and normal humidity for 1 hour Resonant Frequency Shift  fr   45kHz Resonator Loss After test Ar 6.0dB
Mechanical Shock	3 trials of natural dropping from the height of 1 meter on to an board	
Lead Bending	90° bending and returning to the initial position, twice, 0.5kg	
Lead Pull	Pulled 2kgs weight for 5 seconds towards an axis of each terminal	
Solderbility	Dipping terminals into Methanol (JIS-K-501) of rosin(JIS-K-5902) Then, into molten solder at 230±5 for 3±0.5 seconds	
		More than 95 of Terminal surface Covered smooth solder

**ⓘ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!**

1. The center frequency,  $f_c$ , is measured at the minimum IL point with the resonator in the 50 test system.
2. Unless noted otherwise, case temperature  $T_C = +25^\circ\text{C} \pm 2^\circ\text{C}$ .
3. Frequency aging is the change in  $f_c$  with time and is specified at  $+65^\circ\text{C}$  or less. Aging may exceed the specification for prolonged temperatures above  $+65^\circ\text{C}$ . Typically, aging is greatest the first year after manufacture, decreasing in subsequent years.
4. Derived mathematically from one or more of the following directly measured parameters:  $f_c$ , IL, 3 dB bandwidth,  $f_c$  versus  $T_C$ , and  $C_0$ .
5. The specifications of this device are subject to change or obsolescence without notice.
6. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
7. 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.
8. For questions on technology, prices and delivery please contact our sales offices.