

Package : TTS18NSE-A18 / TTS18VSE-A18

Temperature Compensated Crystal Oscillator (TCXO / VC-TCXO)

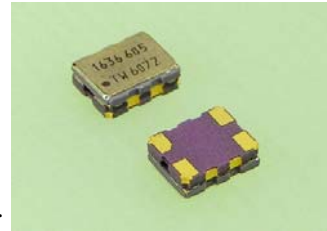
◆ Feature

Reflow solderable , Ceramic SMD package base offers superior flatness.

Ultra-compact (3.2×2.5),lowest height , light weight , and low

High frequency is available. Current consumption type. RoHS compliant.

◆ Applications Cell phone, Base station, GPS, and mobile radio application.



◆ Specifications

Note : Modified specifications are available upon request for specific applications.

Item	Symbol	Specifications		Conditions
		TTS18NSE-A18 (TCXO)	TTS18VSE-A18 (VC-TCXO)	
Output frequency	f_0	19.2 MHz to 52.0 MHz		
Supply voltage	Vcc	+2.3V to +3.7 V		
Current consumption	Icc	2.0 mA max.		Vcc=3.0V , 10 kOhm//10 pF
Output voltage	Vpp	0.8 V min.		NOTE 1) DC coupling
Load	Load_R,C	10 kOhm // 10 pF		
Frequency Stability				
/Frequency tolerance	f_{tol}	$\pm 1.0 \times 10^{-6}$ max.		After reflow , at 25 °C
/temperature characteristics	f_0-T_C	$\pm 2.0 \times 10^{-6}$ max.		-30 °C to +85 °C
/ voltage coefficient	f_0-V_{cc}	$\pm 0.2 \times 10^{-6}$ max.		at 3.0V $\pm 5\%$
/load coefficient	f_0-Load	$\pm 0.2 \times 10^{-6}$ max.		at (10kOhm // 10pF) $\pm 5\%$
/ Frequency ageing	f_{age}	$\pm 1.0 \times 10^{-6}$ max.		1 year , at 25 °C
Frequency control range	f_{cont}	---	± 5 to $\pm 15 \times 10^{-6}$	Vc=1.5V ± 1.0 V , Positive polarity

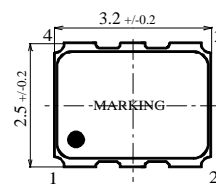
NOTE 1) DC-cut capacitor of output is not put in TCXO. Please add DC-cut capacitor (1,000pF) in oscillator output line

◆ Phase Noise

Frequency Offset (Hz)	Phase Noise (dBc/Hz)
100	-110 typ.
1k	-130 typ.
10k	-145 typ.
100k	-145 typ.

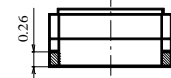
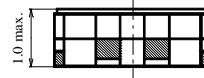
at $f_0=26.000\text{MHz}$ (25 $\pm 2^\circ\text{C}$)

◆ Outline

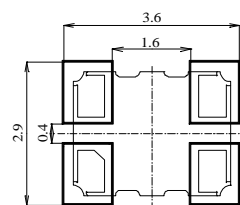
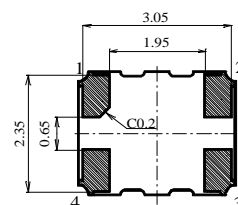


Pin Connections

1. Vc (VSE)
- GND(NSE)
2. GND
3. OUTPUT
4. Vcc



Recommended land pattern(Top View)



unit : (mm)

The ordering number will be obtained separately by customer's requirement.

TEW TEW AMERICA, INC.,

<http://www.tewamerica.com>

Specifications subject to change without notice. Jan / 2011