



actual size

Oscillator · (VC)TCXO · JT22S(V)

Temp. Compensated Crystal Oscillator · 2.5 x 2.0 mm

- low power VCTCXO or TCXO
- temperature range -40 °C ~ +85 °C available
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



General Data

type		JT22S / JT22SV
frequency range		9.5 ~ 52.0 MHz
frequency	at +25 °C	± 1.5 ppm (incl. 2x reflow)
	tolerance/temperature	± 1 ppm ~ ± 5 ppm (table 1)
stability	aging first year	± 1 ppm
	supply voltage	± 0.2 ppm (at $V_{DC} \pm 5\%$)
	load change	± 0.2 ppm
current consumption		1.5 mA max. < 26 MHz / 2.5 mA max. < 52 MHz
supply voltage V_{DC}		1.8 / 2.5 / 2.8 / 3.0 / 3.3 ($\pm 5\%$) *
temperature	operating	see table 1
	storage	-40 °C ~ +85 °C
output	load nom.	10 K Ω // 10 pF
	level min.	0.8 Vpp (clipped sine)
external tuning range JT22SV		± 8 ppm min.
external tuning voltage JT22SV		0.9 V \pm 0.9 V at $V_{DC} = 1.8$ V (standard) 1.5 V \pm 1.0 V at $V_{DC} \geq 2.5$ V (standard) 1.4 V \pm 1.0 V at $V_{DC} \geq 2.5$ V (option)
start-up time max.		2.5 ms
phase noise	at 100 Hz	-109 dBc/Hz typ.
	at f_o	at 1 KHz -133 dBc/Hz typ. at 10 KHz -148 dBc/Hz typ.

Table 1: Frequency Stability vs. Temperature

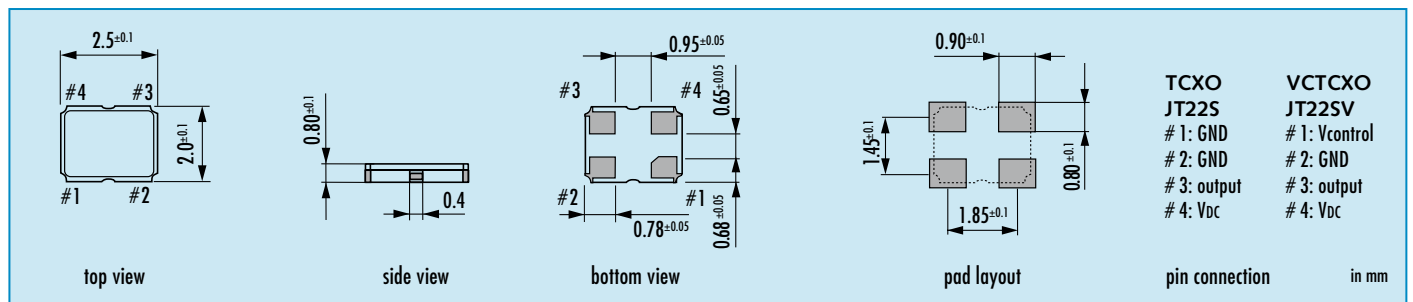
operating temperature code	frequency stability code					
	Y	Z	A	B	C	D
Y : ± 5.0 ppm						
Z : ± 3.0 ppm						
A : ± 2.5 ppm						
B : ± 2.0 ppm						
C : ± 1.5 ppm						
D : ± 1.0 ppm						
A : -30 °C ~ +80 °C	○	○	○	○	○	○
B : -20 °C ~ +70 °C	○	○	○	○	○	○
C : -10 °C ~ +60 °C	○	○	○	○	○	○
D : 0 °C ~ +85 °C	○	○	○	○	○	○
E : 0 °C ~ +55 °C	○	○	○	○	○	○
F : -10 °C ~ +70 °C	○	○	○	○	○	○
G : -30 °C ~ +75 °C	○	○	○	○	○	○
H : -20 °C ~ +75 °C	○	○	○	○	○	○
K : -40 °C ~ +85 °C	○	○	○	○	○	○
L : -20 °C ~ +85 °C	○	○	○	○	○	○
M : -30 °C ~ +85 °C	○	○	○	○	○	○

● standard ○ on request

Note

- TCXO JT22S: pin #1 connected to GND
- VCTCXO JT22SV: pin #1 is control voltage V_c
- external AC coupling for output recommended
- * other nominal supply voltages within 1.8 V ~ 3.3 V need to be specified, ask for availability

Dimensions



Order Information

