



actual size

Oscillator · TCXO · JT22C

TCXO with HCMOS output · 2.5 x 2.0 mm

- excellent phase noise
- operating temperature range -40 °C ~ +85 °C
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



General Data

type	JT22C
frequency range	4.0 ~ 54.0 MHz
frequency	at +25 °C ± 0.5 ppm
stability	temperature ± 2.5 ppm (others on request)
	aging first year ± 1.0 ppm
	supply voltage ± 0.2 ppm (at $V_{DC} \pm 5\%$)
	load change ± 0.2 ppm
	after reflow ± 1.0 ppm
current consumption max.	→ see table 1
supply voltage V_{DC}	1.8 / 2.5 / 2.8 / 3.3 (± 5%)
temperature	operating -30 °C ~ +75 °C / -40 °C ~ +85 °C
	storage -40 °C ~ +125 °C
output	rise & fall time 5.0 ns max.
	load max. 15 pF
	current max. 4.0 mA
	low level max. $0.1 \times V_{DC}$
	high level min. $0.9 \times V_{DC}$
harmonics distortion max.	-5.0 dBc
symmetry at $0.5 \times V_{DC}$	45% ~ 55% max.
start-up time max.	10 ms
standby current max.	10 µA
output enable time max.	10 ms
output disable time max.	250 ns
Jitter 1σ	3.0 ps
phase noise at 10 kHz offset	-145 dBc/Hz

Table 1: Current Consumption max.

	4 ~ 10 MHz	~ 20 MHz	~ 30 MHz	~ 40 MHz	~ 54 MHz
1.8 V	3.1 mA	3.7 mA	4.2 mA	4.6 mA	5.5 mA
2.5 V	3.1 mA	3.7 mA	4.2 mA	4.6 mA	5.5 mA
2.8 V	3.4 mA	4.1 mA	4.7 mA	5.2 mA	6.0 mA
3.3 V	4.0 mA	4.8 mA	5.5 mA	6.0 mA	7.0 mA

Enable / Disable Function

pin #1 (e/d control)	pin #3 (output)
open	active
high "1" ($V_{IH} \geq 0.7 V_{DC}$)	active
low "0" ($V_{IL} \leq 0.3 V_{DC}$)	high impedance
stop function: • oscillator stops • output high impedance	

Note

4 user pins (e/d, GND, output, V_{DC})
leave the other pins unconnected!

Dimensions

top view	side view	bottom view	pad layout	TCXO JT22C # 1: e/d # 2: GND # 3: output # 4: V_{DC} pin connection	in mm
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Order Information

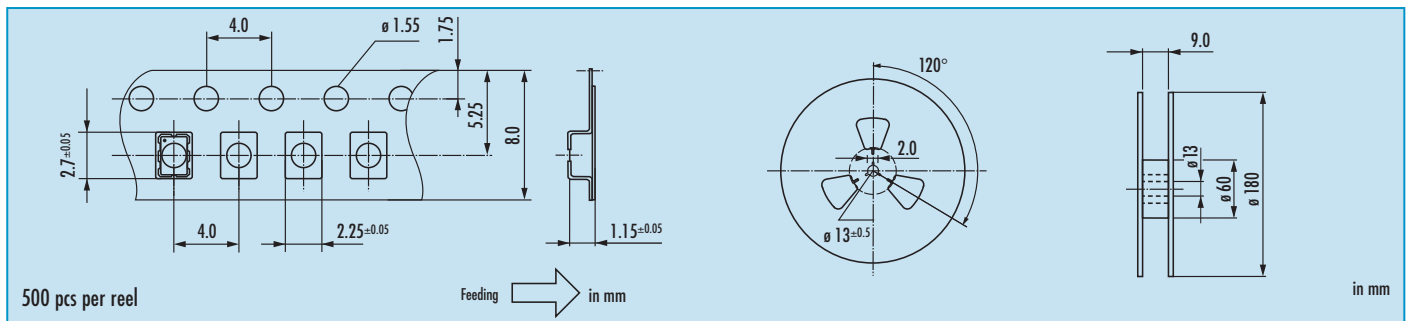
0	frequency in MHz	type	frequency stability code	operating temp. code	supply voltage
Oscillator	4.0 ~ 54.0 MHz	JT22C = TCXO	A = ± 2.5 ppm	G = -30 °C ~ +75 °C K = -40 °C ~ +85 °C	1.8 = 1.8 V 2.5 = 2.5 V 2.8 = 2.8 V 3.3 = 3.3 V
Example: O 16.3680-JT22C-A-K-3.3-LF (Suffix LF = RoHS compliant / Pb free pads)					



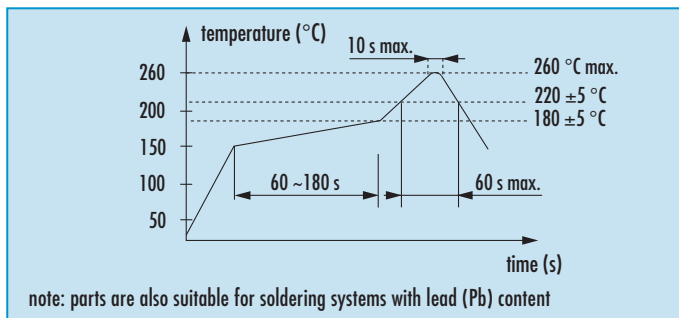
Jauch Quartz GmbH • e-mail: info@jauch.de
full data can be found under: www.jauch.de / www.jauch.fr / www.jauchusa.com
All specifications are subject to change without notice

Oscillator · TCXO · JT22C

Taping Specification



Reflow Soldering Profile



Marking

frequency

company code / stability code / date code (YM)

date code:

A ~ M: Jan.- Dec.

9: 2009

0: 2010

1: 2011

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

Packing Note

- standard packing units are 500 pieces per reel
- non-multiple packing units are only supplied taped / bulk