



actual size

Oscillator · (VC)TCXO · JT75(V)

Temp. Compensated Crystal Oscillator · 7.0 x 5.0 mm

- low power VCTCXO or TCXO
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



General Data

type		JT75 / JT75V
frequency range		10.0 ~ 26.0 MHz
frequency	at +25 °C	± 0.5 ppm
	temperature	± 1 ppm ~ ± 2.5 ppm (table 1)
stability	aging first year	± 1 ppm
	supply voltage	± 0.2 ppm (at V _{DC} ± 5%)
	load change	± 0.2 ppm
current consumption max.		2.0 mA max.
supply voltage V _{DC}		2.8 / 3.0 / 3.3 / 5.0 V (± 5%)
temperature	operating	see table 1
	storage	-40 °C ~ +85 °C
output	load nom.	10 KΩ // 10 pF
	level min.	0.8 Vpp (clipped sine)
external tuning range JT75 V		± 8 ppm min.
external tuning voltage		1.5 V ± 1.0 V
start-up time max.		2.5 ms
phase noise	at 100Hz	-110 dBc/Hz
	at f _o	-125 dBc/Hz
13 MHz	at 10KHz	-130 dBc/Hz

Table 1: Frequency Stability vs. Temperature

operating temperature code	frequency stability code			
	A	B	C	D
A: -30 °C ~ +80 °C	± 2.5 ppm	± 2.0 ppm	± 1.5 ppm	± 1.0 ppm
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	○	○	○	○

● standard ○ on request

Note

- TCXO JT75: pin #1 connected to ground
- VCTCXO JT75V: pin #1 connected to control voltage
- internal AC coupling of output

Dimensions

top view

side view

bottom view

pad layout

TCXO JT75	VCTCXO JT75V
# 1: GND	# 1: Vcontrol
# 2: GND	# 2: GND
# 3: output	# 3: output
# 4: Vdc	# 4: Vdc
# 5, 6, 7, 8 N.C.	# 5, 6, 7, 8 N.C.

pin connection

in mm

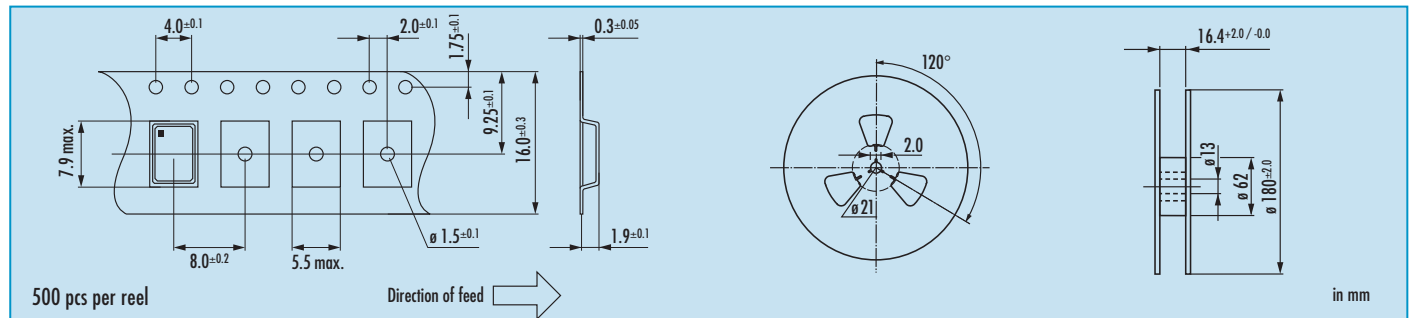
Order Information

0	frequency in MHz	type	frequency stability code	operating temp. code	supply voltage
Oscillator	10.0 ~ 26.0 MHz	JT75 = TCXO JT75V = VCTCXO	A ~ D see table 1	A ~ H see table 1	2.8 = 2.8 V 3.0 = 3.0 V 3.3 = 3.3 V 5.0 = 5.0 V

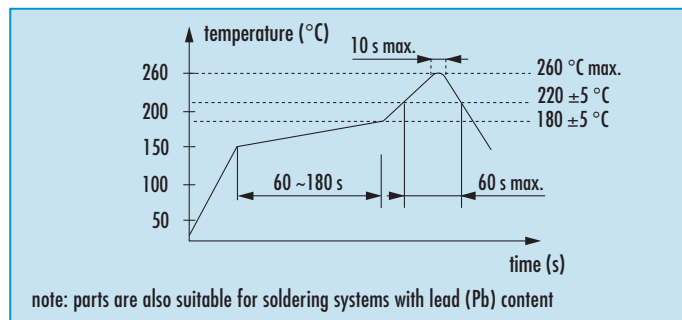
Example: O 13.0-JT75-A-A-3.3-LF (Suffix LF = RoHS compliant / Pb free pads)

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Taping Specification



Reflow Soldering Profile



Marking

frequency

company code / stability code / voltage code / date code

date code:

A ~ M: Jan. - Dec.
 1: 2011 4: 2014
 2: 2012 5: 2015
 3: 2013 6: 2016

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