



actual size

# Oscillator · VCXO · 3.3 V

SMD Voltage Control Crystal Oscillator · 7.5 x 5.0 mm

- two pinout versions available
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



## General Data

<b>type</b>	<b>JV75 3.3 V</b>	
frequency range	1.0 ~ 125.0 MHz	
frequency stability over all*	± 25ppm* / ± 50ppm	
	see table 1	
current consumption	see table 2	
supply voltage V <sub>DC</sub>	3.3 V ± 10%	
frequency pulling range min.	± 50ppm / ± 100ppm <sup>▲</sup> / ± 150ppm <sup>♯</sup>	
pulling control voltage	1.65 V ± 1.65 V <sup>♯</sup>	
pulling linearity max.	± 10%	
temperature	operating	-10 °C ~ +70 °C / -40 °C ~ +85 °C
	storage	-40 °C ~ +85 °C
output	rise & fall time	see table 3
	load max.	15pF
	current max.	4mA
	low level max.	0.1 x V <sub>DC</sub>
	high level min.	0.9 x V <sub>DC</sub>
standby function	yes	
start-up time max.	10ms	
symmetry at 0.5 x V <sub>DC</sub>	45% ~ 55% typ. (40% ~ 60% max.)	

Table 1: Frequency Stability Code

stability code	B	C			
	± 50 ppm	± 25 ppm			
-10 °C ~ +70 °C	○	○			
-40 °C ~ +85 °C	○	○			
● standard ○ available					

\*includes stability at 25 °C, operating temp. range, supply voltage change, shock and vibration, aging 1st year.

Table 2: Current Consumption max.

Current at 15pF load:	
1.0 ~ 29.9 MHz	15 mA
30.0 ~ 44.9 MHz	20 mA
45.0 ~ 51.9 MHz	25 mA
52.0 ~ 125.0 MHz	35 mA

Table 3: Rise & Fall Time max.

6.0 ns: 1.0 ~ 39.9 MHz	<b>note:</b> - specific data on request - rise time: 0.1 V <sub>DC</sub> ~ 0.9 V <sub>DC</sub> - fall time: 0.9 V <sub>DC</sub> ~ 0.1 V <sub>DC</sub>
5.0 ns: 40.0 ~ 125.0 MHz	

## Recommendation

To avoid phase noise or FM modulation in the output frequency spectrum, we recommend to feed the Vcontrol input pin by a low source impedance.

\*not available > 52.0 MHz ▲not available > 80.0 MHz ♯on request, if < 52.0 MHz

## Dimensions

top view

side view

bottom view

pad layout

<b>standard pin connection B</b> # 1: Vcontrol # 2: e/d # 3: ground # 4: output # 5: nc # 6: VDD	<b>optional pin connection A</b> # 1: Vcontrol # 2: nc # 3: ground # 4: output # 5: e/d # 6: VDD
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in mm

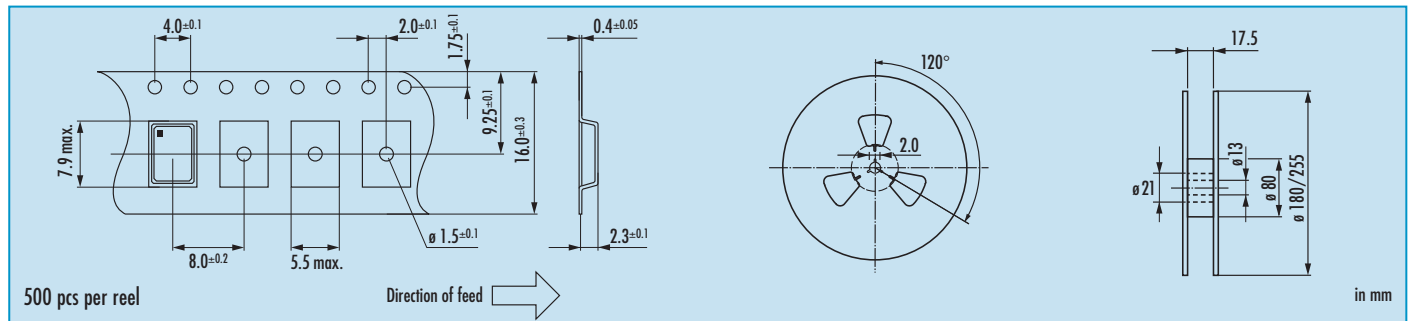
## Order Information

<b>0</b>	frequency in MHz	type	frequency stability in ppm	supply voltage in Volt	pulling range in ppm	pin version	option
Oscillator	1.0 ~ 125.0 MHz	JV75	C = ± 25 ppm* B = ± 50 ppm	3.3 = 3.3 V	05 = ±50 ppm 10 = ±100 ppm <sup>▲</sup> 15 = ±150 ppm <sup>♯</sup>	B = standard A = optional	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C
*not available > 52.0 MHz				▲not available > 80.0 MHz			
				♯on request, if < 52.0 MHz			
<b>Example: O 20.0-JV75-C-3.3-10-B</b> (LF = RoHS compliant / Pb free pins or pads)							

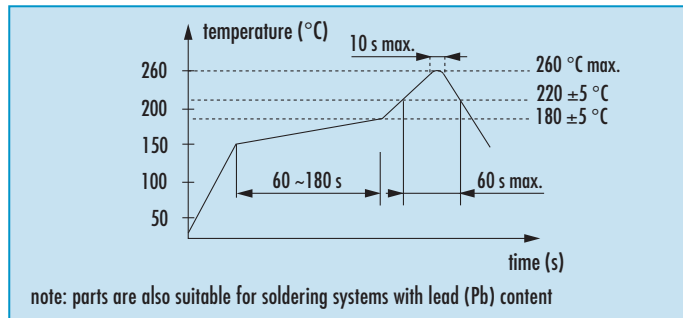


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## Taping Specification



## Reflow Soldering Profile



## Marking

frequency

type / date code

date code:

A ~ M: Jan. - Dec.

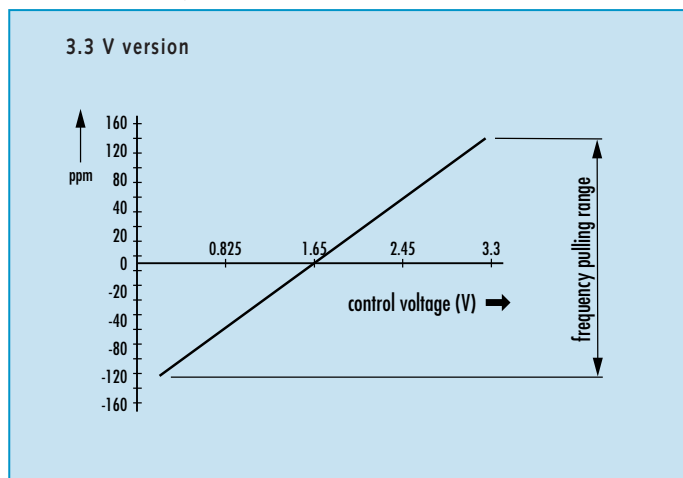
9: 2009

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

## Control Voltage Characteristic



## Packing Note

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

## Enable / Disable Function

pin #2/#5	pin #4
open or $\geq 0.7 V_{DC}$	enable
gnd or $\geq 0.3 V_{DC}$	high impedance