



actual size

# Oscillator · VCXO · JV53 · 3.3 V

SMD Voltage Control Crystal Oscillator · 5.0 x 3.2 mm

- pulling range up to  $\pm 100$  ppm min.
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



## General Data

type	JV53 3.3 V
frequency range	2.0 ~ 54.0 MHz
frequency stability over all*	$\pm 30$ ppm / $\pm 50$ ppm see table 1
current consumption	see table 2
supply voltage $V_{DC}$	3.3 V $\pm 10\%$
frequency pulling range min.	$\pm 100$ ppm ( $\pm 150$ ppm typ.)
pulling control voltage	1.65 V $\pm 1.35$ V*
pulling linearity	<10%
temperature	operating -20 °C ~ +70 °C / -40 °C ~ +85 °C
	storage -55 °C ~ +125 °C
output	rise & fall time see table 3
	load max. 15pF
	current max. 4mA
	low level max. $0.1 \times V_{DC}$
	high level min. $0.9 \times V_{DC}$
standby function	no
start-up time max.	10ms
symmetry at $0.5 \times V_{DC}$	45% ~ 55% max.

Table 1: Frequency Stability Code

stability code	B	G				
	$\pm 50$ ppm	$\pm 30$ ppm				
-20 °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:

2.0 ~ 19.9 MHz	10 mA
20.0 ~ 29.9 MHz	15 mA
30.0 ~ 39.9 MHz	20 mA
40.0 ~ 54.0 MHz	25 mA

Table 3: Rise & Fall Time max.

6.0 ns:	> 10.0 MHz
10.0 ns:	< 10.0 MHz

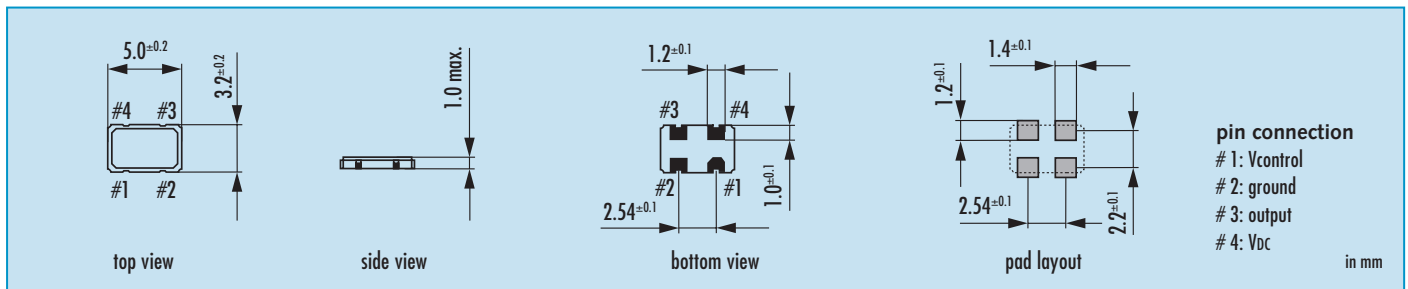
note:

- specific data on request
- rise time:  $0.1 V_{DC} \sim 0.9 V_{DC}$
- fall time:  $0.9 V_{DC} \sim 0.1 V_{DC}$

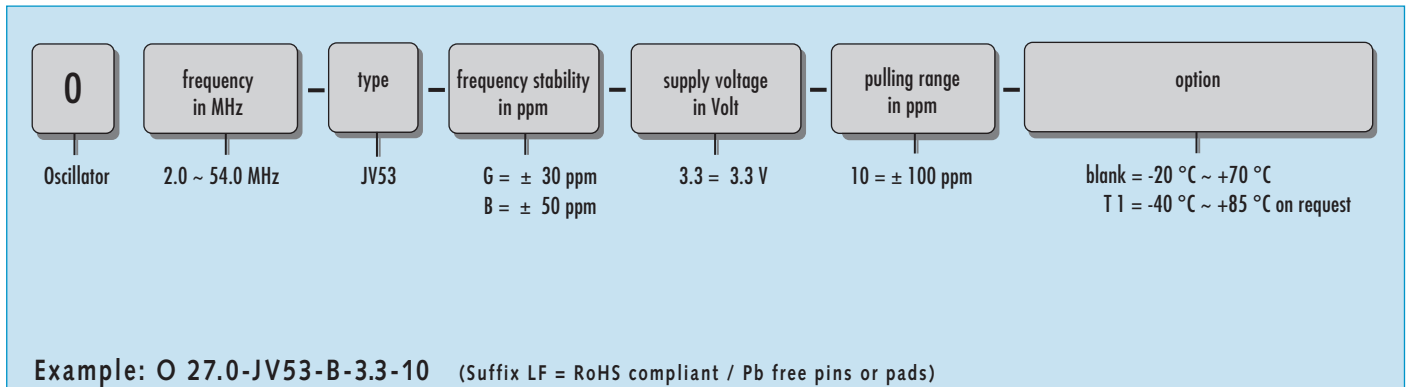
## Recommendation

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.

## Dimensions

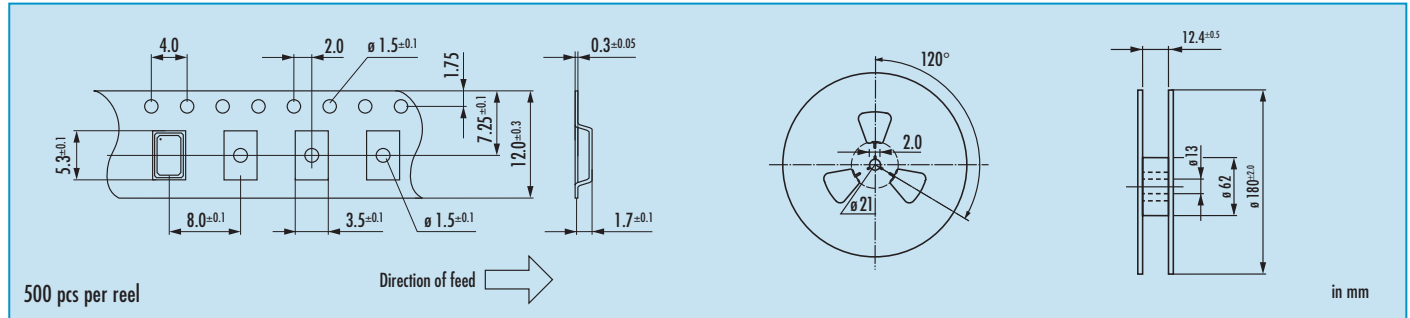


## Order Information

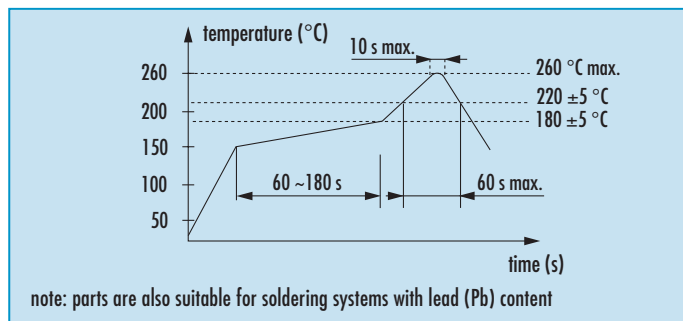


# Oscillator · VCXO · JV53 · 3.3 V

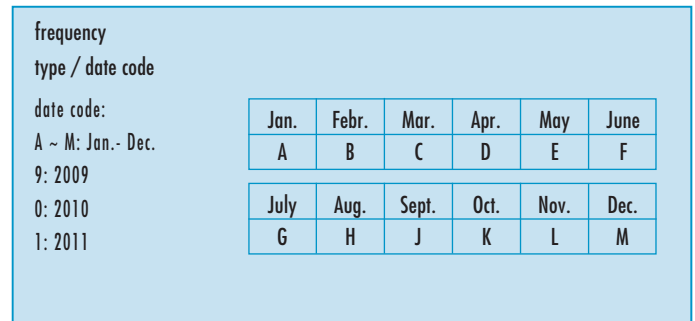
## Taping Specification



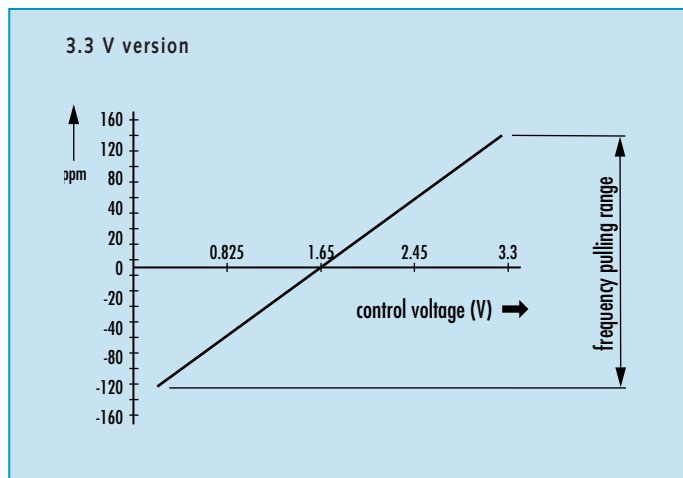
## Reflow Soldering Profile



## Marking



## Control Voltage Characteristic



## Packing Note

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