



actual size

# Oscillator JOD53 · LVDS

- SMD Low Voltage LVDS Oscillator, 5.0 x 3.2 mm
- drives fast LVDS logic
- complementary outout, low EMI
- compact & flat ceramic / metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA		JOD53 3.3V & 2.5V (3rd OT)
<b>TYPE</b>	<b>JOD53 3.3V &amp; 2.5V (3rd OT)</b>	
frequency range	65.0 ~ 190.0 MHz	
frequency stability over all*	± 25 ppm ~ ± 100 ppm (see table 1)	
current consumption	25 mA max.	
supply voltage V <sub>DC</sub>	3.3 V ±5% / 2.5 V ±5%	
temperature	operating	-20 °C ~ +70 °C (T0)
		-40 °C ~ +85 °C (T1)
		-40 °C ~ +125 °C (T2*)
		-40 °C ~ +125 °C (T3*)
storage	-55 °C ~ +125 °C	
output	rise & fall time	0.4 ns (20% ~ 80% of V <sub>pp</sub> )
	load nom.	100 Ω differential
	swing min.	0.33 V <sub>p-p</sub> typ. / 0.25 V <sub>p-p</sub> min.
	offset voltage	1.25 V ± 0.125 V
output enable time max.	10 ms	
output disable time max.	200 ns	
start-up time max.	10 ms	
standby function	stop	
standby current max.	10 μA	
phase jitter 12 kHz ~ 20.0 MHz	< 0.5 ps RMS	
symmetry at 50% of V <sub>pp</sub>	45% ~ 55% typ. (40% ~ 60% if T3)	

\* ask for availability of higher temperature ranges and frequency stabilities

## TABLE 1: FREQUENCY STABILITY CODE

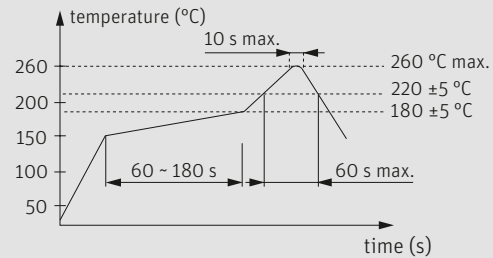
stability code		A	B	G	C
temp. code*		± 100 ppm	±50 ppm	± 30 ppm	± 25 ppm
-20 °C ~ +70 °C	T0	○	○	○	○
-40 °C ~ +85 °C	T1	○	○	○	
-40 °C ~ +105 °C	T2*	○	○		
-40 °C ~ +125 °C	T3*	○	○		

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

## ENABLE / DISABLE FUNCTION

pin #1 (e/d control)	pin #4 / #5 (outputs)
open or ≥ 0.7 V <sub>CC</sub>	enable
gnd or ≥ 0.3 V <sub>CC</sub>	high impedance

## REFLOW SOLDERING PROFILE



note: parts are also suitable for soldering systems with lead (Pb) content

### DIMENSIONS

top view

side view

bottom view

pad layout

# 1: e/d  
# 2: nc  
# 3: ground  
# 4: output 1  
# 5: output 2  
# 6: V<sub>CC</sub>

pin connection

in mm

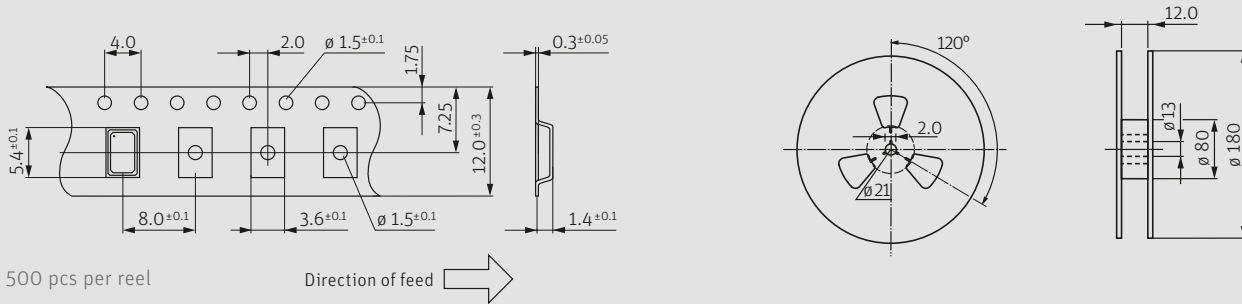
### ORDER INFORMATION

0	frequency	type	frequency stability code	supply voltage code	option
Oscillator	65.0 ~ 190.0 MHz	JOD53	see table 1	2.5 = 2.5 V 3.3 = 3.3 V	T0 = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C please ask T3 = -40 °C ~ +125 °C please ask

**Example: 0 156.250-JOD53-B-3.3-T1-LF** (Suffix LF = RoHS compliant / Pb free)

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## TAPING SPECIFICATION



in mm

## PACKAGING NOTE

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

## MARKING

company code / frequency

□ CF / internal code / data code

date code: A ~ M: Jan. - Dec.

7: 2017   8: 2018   9: 2019   0: 2020   1: 2021   2: 2022

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