



actual size

Oscillator · JO75 · 3.3 V

SMD Oscillator with Stop Function · 7.5 x 5.0 mm

- reflow soldering temperature: 260 °C max.
- ceramic/metal package



General Data

type	JO75 3.3 V
frequency range	1.0 ~ 170.0 MHz (15pF max.)
	1.0 ~ 80.0 MHz (30pF max)
frequency stability over all*	± 20ppm ~ ± 100ppm (table 1)
current consumption	see table 2
supply voltage V _{DC}	3.3 V ± 10%
temperature	operating -10 °C ~ +70 °C / -40 °C ~ +85 °C
	storage -55 °C ~ +125 °C
output	rise & fall time see table 3
	load max 15pF / 30pF
	current max. 8mA
	low level max. 0.1 x V _{DC}
	high level min. 0.9 x V _{DC}
output enable time max.	10ms
output disable time max.	200ns
start-up time max.	10ms
standby function	stop
standby current max.	10µA
phase jitter 12 kHz ~ 20.0 MHz	< 1.0ps RMS
symmetry at 0.5 x V _{DC}	45% ~ 55% typ. (40% ~ 60% max.)

Table 1: Frequency Stability Code

stability code	A	B	G	C	D
	± 100 ppm	± 50 ppm	± 30 ppm	± 25 ppm	± 20 ppm
-10 °C ~ +70 °C		●	○	○	△
-40 °C ~ +85 °C	○	●	○	△	

● standard ○ available △ excludes shock and vibration

* 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		Current at 30pF load	
1.0 ~ 19.9 MHz	8 mA	1.0 ~ 19.9 MHz	15 mA
20.0 ~ 49.9 MHz	15 mA	20.0 ~ 49.9 MHz	25 mA
50.0 ~ 79.9 MHz	25 mA	50.0 ~ 80.0 MHz	35 mA
80.0 ~ 99.9 MHz	35 mA		
100.0 ~ 124.9 MHz	45 mA		
125.0 ~ 170.0 MHz	60 mA		

Table 3: Rise & Fall Time max.

6.0 ns: 1.0 ~ 9.9 MHz	note: - specific data on request - rise time: 0.1 V _{DC} ~ 0.9 V _{DC} - fall time: 0.9 V _{DC} ~ 0.1 V _{DC}
5.0 ns: 10.0 ~ 39.9 MHz	
4.0 ns: 40.0 ~ 69.9 MHz	
3.0 ns: 70.0 ~ 170.0 MHz	

note: Suffix "X" includes 10 years aging, for A, B, G available.

Dimensions

pin connection
 # 1: e/d
 # 2: ground
 # 3: output
 # 4: V_{DC}

in mm

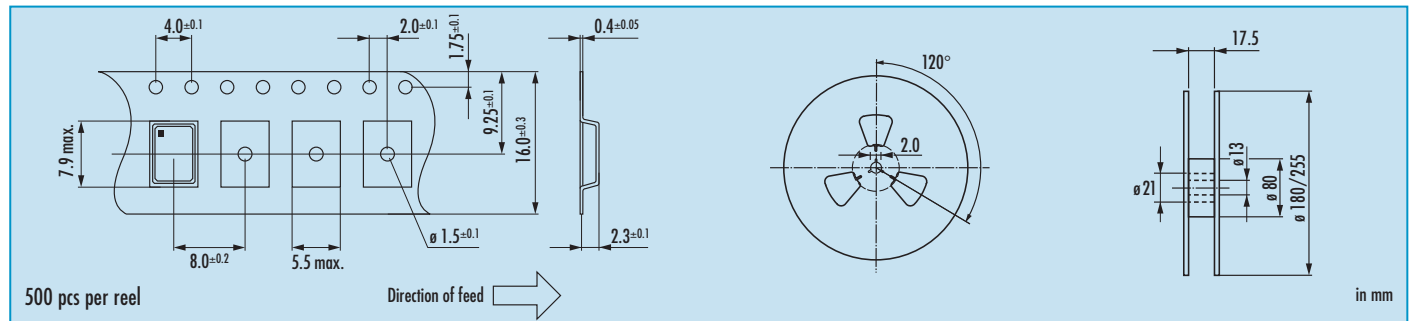
Order Information

0	frequency	type	frequency stability code	supply voltage code	output load code	option
Oscillator	1.0 ~ 170.0 MHz	JO75	see table 1	3.3 = 3.3 V	1 = 15 pF 2 = 30 pF	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: O 20.0-JO75-B-3.3-1 (LF = RoHS compliant / Pb free pads)

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Taping Specification



Enable / Disable Function

pin #1 (e/d control)	pin #3 (output)
open	active
high "1" ($V_{IH} \geq 0.8 V_{DC}$)	active
low "0" ($V_{IL} \leq 0.2 V_{DC}$)	high impedance

stop function:

- oscillator stops
- output high impedance

Marking

frequency type / date code

date code:

A ~ M: Jan. - Dec.

9: 2009

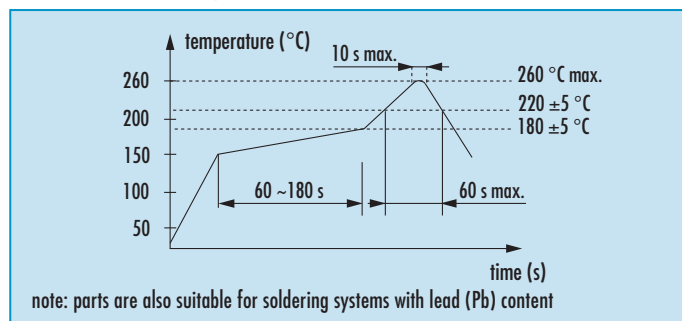
0: 2010

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

Reflow Soldering Profile



Packing Note

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