



actual size

# Oscillator · JO75 · 3.3 V

Low Frequency Oscillator with Stop Function · 7.5 x 5.0 mm

- high stability type for RTC application
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



## General Data

<b>type</b>	<b>JO75 3.3 V</b>	
frequency range	12.0 kHz ~ 1.0 MHz (30pF max.)	
frequency stability over all*	± 20ppm ~ ± 100ppm	
	see table 1	
current consumption	see table 2	
supply voltage V <sub>DC</sub>	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.	2mA
	low level max.	0.1 x V <sub>DC</sub>
	high level min.	0.9 x V <sub>DC</sub>
output enable time max.	5ms	
output disable time max.	150ns	
start-up time max.	5ms	
standby function	stop	
standby current max.	10µA	
symmetry at 0.5 x V <sub>DC</sub>	45% ~ 55% 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 12.0 kHz ~ 1.0 MHz 10 mA	Current at 30pF load 12.0 kHz ~ 1.0 MHz 16 mA
--	--

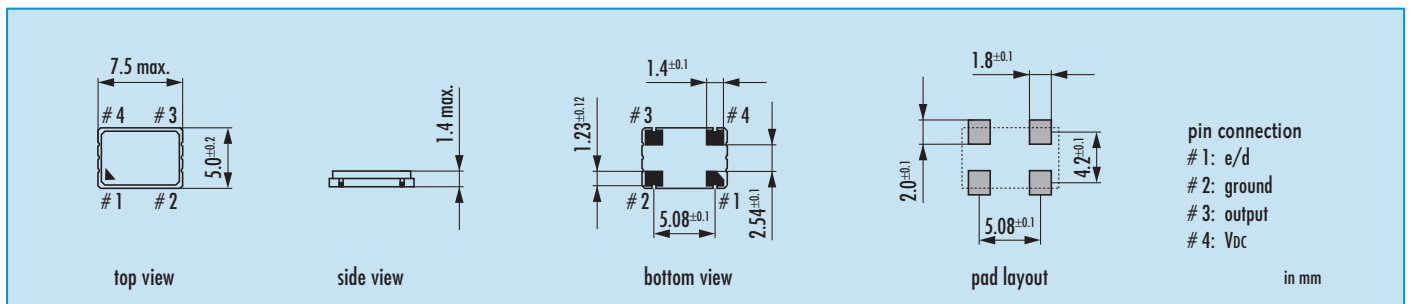
Table 3: Rise & Fall Time max.

6.0 ns: 12.0 kHz ~ 1.0 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>
----------------------------	--

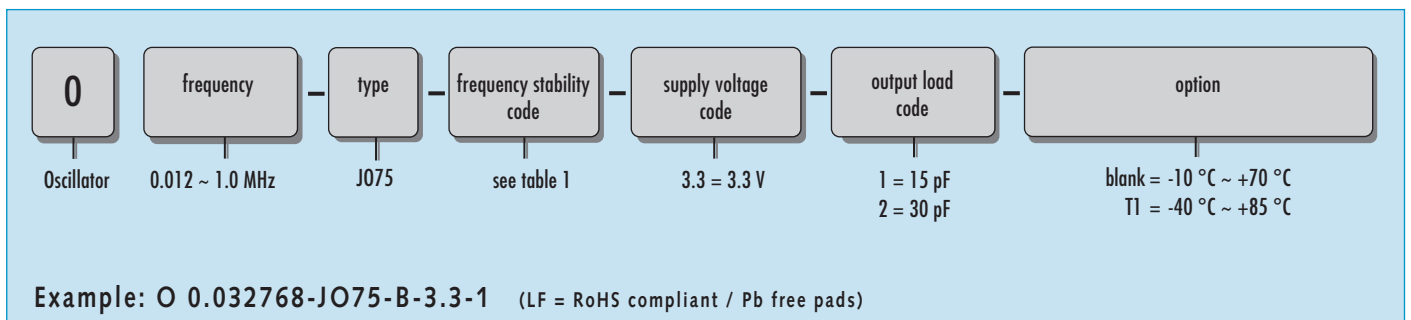
## Standard Frequency

32.768 KHz
------------

## Dimensions

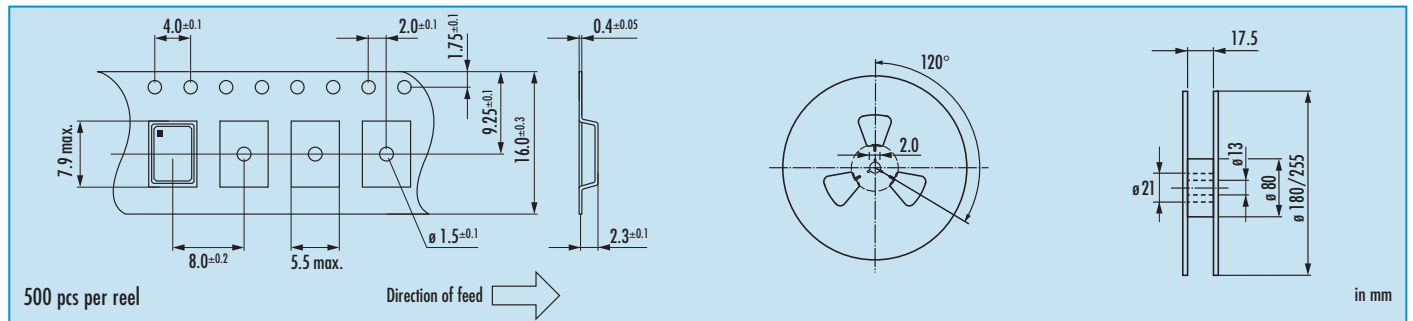


## Order Information



# Oscillator · JO75 · 3.3 V · Low Frequency

## 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

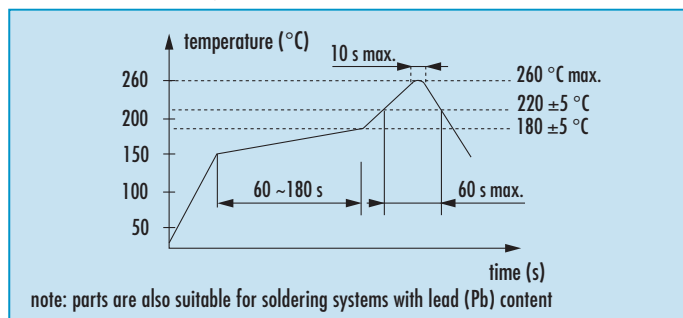
## Marking

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