



actual size

Oscillator · JO75 · 2.5 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 2.5 V
frequency range	0.50 ~ 160.0 MHz (15pF max.) 0.50 ~ 50.00 MHz (30pF max.)
frequency stability over all*	± 20ppm ~ ± 50ppm (table 1)
current consumption	see table 2
supply voltage V _{DC}	2.5 V ± 5%
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.: 4mA / 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.	150ns
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
	± 100 ppm	± 50 ppm	± 30 ppm	± 25 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.

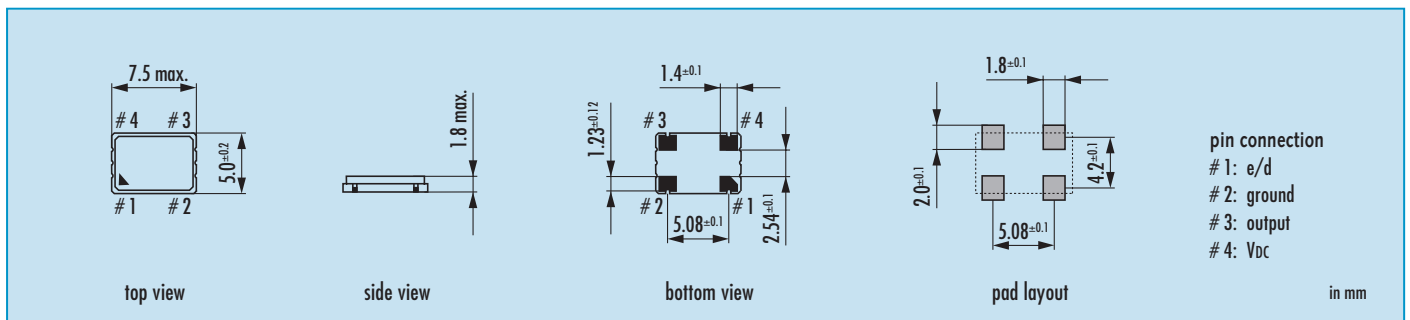
Table 2: Current Consumption max.

Current at 15pF load		Current at 30pF load	
0.5 ~ 19.9 MHz	6 mA	0.5 ~ 19.9 MHz	10 mA
20.0 ~ 49.9 MHz	11 mA	20.0 ~ 50.0 MHz	20 mA
50.0 ~ 79.9 MHz	17 mA		
80.0 ~ 124.9 MHz	28 mA		
125.0 ~ 160.0 MHz	38 mA		

Table 3: Rise & Fall Time max.

8 ns: 0.5 ~ 1.79 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}
6 ns: 1.8 ~ 49.99 MHz	
5 ns: 50.0 ~ 79.99 MHz	
4 ns: 80.0 ~ 124.99 MHz	
3 ns: 125.0 ~ 160.00 MHz	

Dimensions



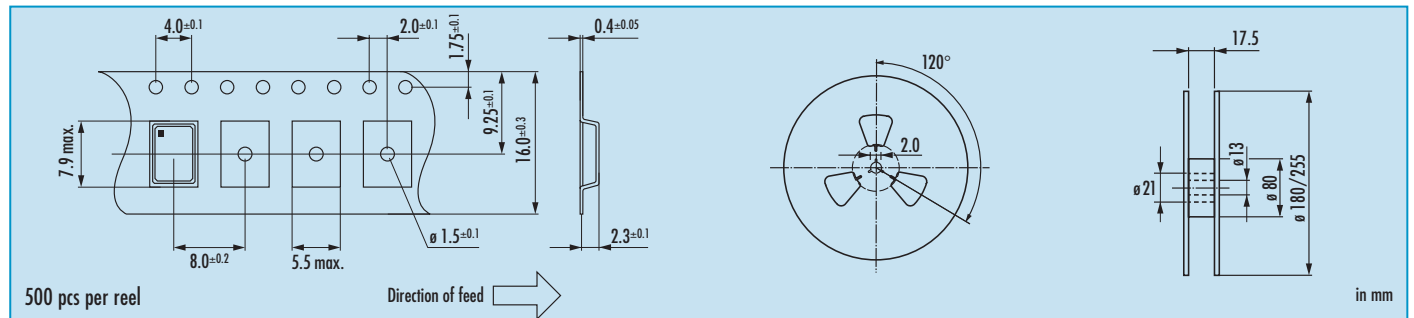
Order Information

0	frequency	type	frequency stability code	supply voltage code	output load code	option
Oscillator	0.5 ~ 160.0 MHz	JO75	see table 1	2.5 = 2.5 V	1 = 15 pF 2 = 30 pF	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C
Example: O 20.0-JO75-B-2.5-1 (LF = RoHS compliant / Pb free pads)						



Oscillator · JO75 · 2.5 V · Stop Function

Taping Specification



Enable / Disable Function

pin #1 (e/d control)	pin #3 (output)
open	use external pull-up resistor
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	

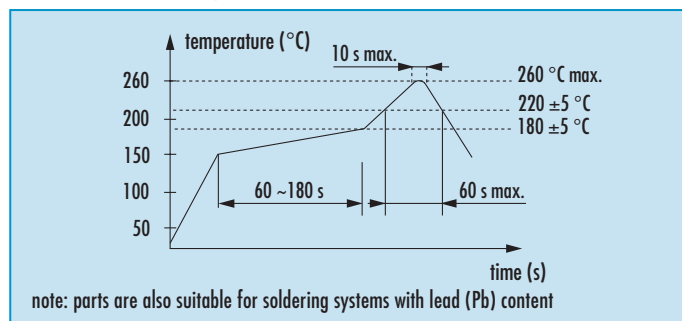
Marking

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