



actual size

Oscillator · JO75 · 1.8 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 1.8V	
frequency range	0.50 ~ 160.0 MHz (15pF max.)	
	0.50 ~ 50.0 MHz (30pF max.)	
frequency stability over all*	± 20ppm ~ ± 100ppm (table 1)	
current consumption	see table 2	
supply voltage V _{DC}	1.8V ± 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.	2mA / 2.8mA
	low level max.	0.2 x V _{DC}
	high level min.	0.8 x V _{DC}
output enable time max.	10ms	
output disable time max.	250ns	
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.

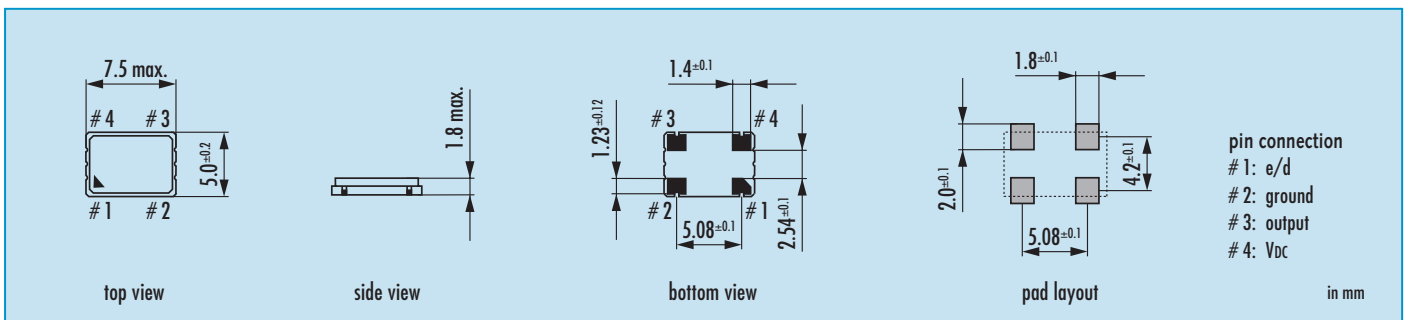
Table 2: Current Consumption max.

Current at 15pF load		Current at 30pF load	
0.5 ~ 19.9 MHz	5 mA	0.5 ~ 19.9 MHz	8 mA
20.0 ~ 49.9 MHz	8 mA	20.0 ~ 50.0 MHz	18 mA
50.0 ~ 79.9 MHz	15 mA		
80.0 ~ 124.9 MHz	25 mA		
125.0 ~ 160.0 MHz	35 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}
7 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



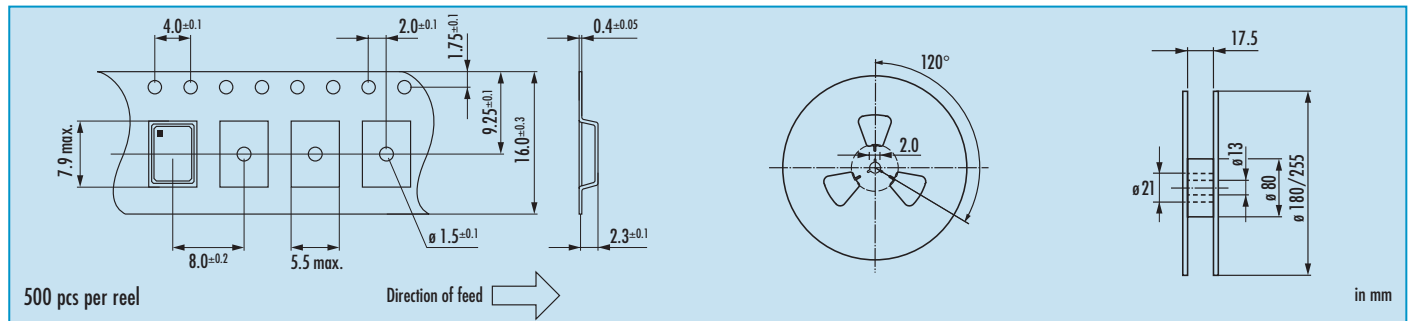
Order Information

0	frequency	type	frequency stability code	supply voltage code	output load code	option
Oscillator	0.5 ~ 160.0 MHz	JO75	see table 1	1.8 = 1.8 V	1 = 15 pF 2 = 30 pF	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C
Example: O 20.0-JO75-B-1.8-1 (LF = RoHS compliant / Pb free pins or 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: <ul style="list-style-type: none"> oscillator stops output high impedance 	

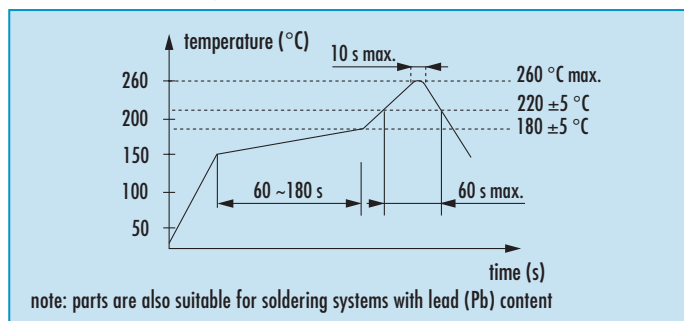
Marking

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