



actual size

Oscillator JO75 · 5.0 V

- SMD Oscillator with stop function · 7.0 x 5.0 mm
- HCMOS compatible output
- low phase jitter, no PLL
- seam sealed ceramic/metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA		
TYPE	JO75 5.0 V with stop function	
frequency range	1.0 ~ 170.0 MHz (15 pF)	
	1.0 ~ 80.0 MHz (30 pF)	
	5.0 ~ 60.0 MHz (50 pF)	
frequency stability over all*	± 20 ppm ~ ± 100 ppm (table 1)	
current consumption	see table 2	
supply voltage V _{DC}	5.0 V ± 10 %	
temperature	operating	-20 °C ~ +70 °C / -40 °C ~ +85 °C
	storage	-55 °C ~ +125 °C
output	rise & fall time	see table 3
	load max.	15 pF / 30 pF / 50 pF
	current max.	16 mA (50 pF) / 2.0 mA (15 pF & 30 pF)
	low level max.	0.1 x V _{DC}
	high level min.	0.9 x V _{DC}
output enable time max.	10 ms	
output disable time max.	200 ns	
start-up time max.	10 ms	
standby function	stop with tristate	
standby current max.	20 µA (see page 2)	
phase jitter 12 kHz ~ 20.0 MHz	< 1.0 ps 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
-20 °C ~ +70 °C	STD		○	○	○	△
-40 °C ~ +85 °C	T1	○	○	○	△	

○ available △ excludes shock and vibration

TABLE 2: CURRENT CONSUMPTION MAX.		
Current at 15 pF load:	Current at 30 pF load:	Current at 50 pF load:
1.0 ~ 31.9 MHz 18 mA	1.0 ~ 19.9 MHz 15 mA	5.0 ~ 19.9 MHz 15 mA
32.0 ~ 49.9 MHz 35 mA	20.0 ~ 31.9 MHz 25 mA	20.0 ~ 60.0 MHz 30 mA
50.0 ~ 66.9 MHz 50 mA	32.0 ~ 66.9 MHz 60 mA	
80.0 ~ 124.9 MHz 70 mA	67.0 ~ 80.0 MHz 75 mA	
125.0 ~ 170.0 MHz 90 mA		

TABLE 3: RISE & FALL TIME MAX.	
6.0 ns: 1.0 ~ 9.9 MHz (30 pF)	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 ~ 79.9 MHz (30 pF)	
4.0 ns: 80.0 ~ 170.0 MHz (15 pF)	
5.0 ns: 5.0 ~ 60.0 MHz (50 pF)	

DIMENSIONS

top view side view bottom view pad layout pin connection in mm

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

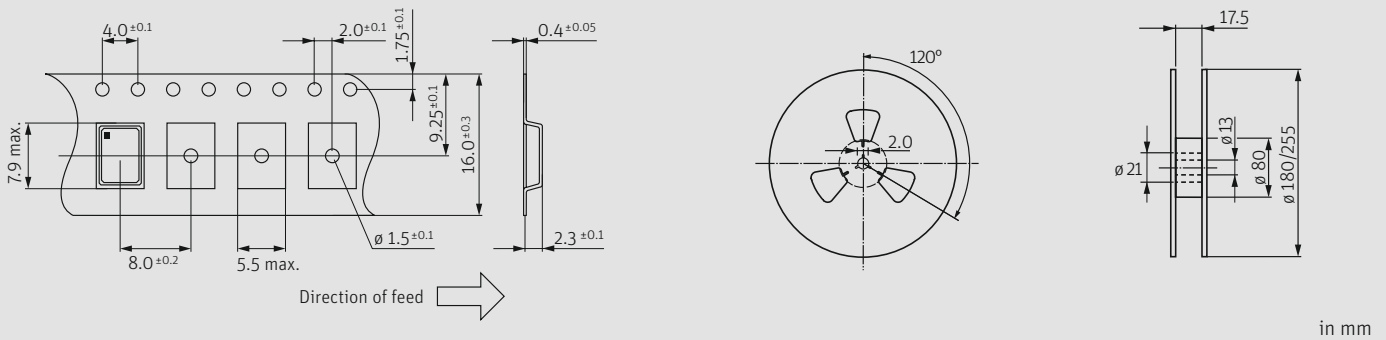
ORDER INFORMATION

0	frequency	type	frequency stability code	supply voltage code	output load code	temperature code option	Stop function code
Oscillator	1.0 ~ 170.0 MHz (15 pF) 1.0 ~ 80.0 MHz (30 pF) 5.0 ~ 60.0 MHz (50 pF)	JO75	see table 1	5.0 = 5.0V	1 = 15 pF std. > 80 MHz 2 = 30 pF std. < 80 MHz 3 = 50 pF opt. < 60 MHz	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C	STP

Example: 0 20.0-JO75-B-5.0-2-T1-STP-LF (Suffix LF = RoHS compliant / Pb free)

Oscillator J075 · 5.0 V · Stop Function

TAPING SPECIFICATION



in mm

ENABLE / DISABLE FUNCTION

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

stop function:

- oscillator stops for lowest standby current
- output high impedance

MARKING

frequency

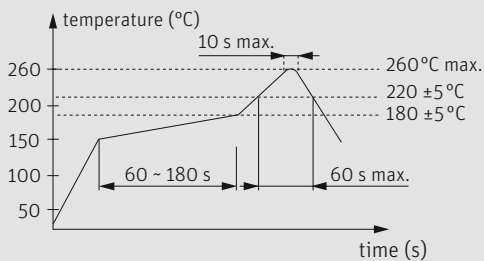
company stability code / voltage date code

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

4: 2024 5: 2025 6: 2026 7: 2027 8: 2028 9: 2029

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



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

PACKAGING NOTE

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