



actual size

Oscillator JOE75 · PECL · 2.5 V

- SMD Low Voltage PECL Oscillator, 7.5 x 5.2 mm
- drives fast PECL logic
- complementary outout, low EMI
- ceramic / metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA

TYPE		JOE75 2.5V
frequency range		40.0 ~ 170.0 MHz
higher frequencies on request		170.0 ~ 270.0 MHz
frequency stability over all*		± 25 ppm / ± 50 ppm / ± 100 ppm see 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	0.7 ns (20% ~ 80% of V _{pp})
	load nom.	50 Ω at 0.5 V
	low level max.	1.195 V
	high level min.	1.415 V
output enable time max.		10 ms
output disable time max.		200 ns
start-up time max.		10 ms
standby function		stop
standby current max.		30 μA
phase jitter 12 kHz ~ 20.0 MHz		< 1.0 ps RMS
period jitter		< 5.0 ps RMS
symmetry at 50% of V _{pp}		45% ~ 55% max.

TABLE 1: FREQUENCY STABILITY CODE

stability code	A	B	C
temp. code*	± 100 ppm	± 50 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.

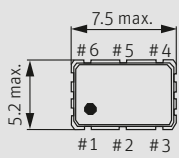
Current consumption at nominal load:

40.0 ~ 170.0 MHz	60 mA
170.0 ~ 270.0 MHz	88 mA

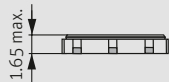
ENABLE / DISABLE FUNCTION

pin #1 (e/d control)	pin #4 / #5 (outputs)
open or ≥ 0.7 V _{CC}	enable
gnd or ≥ 0.3 V _{CC}	high impedance

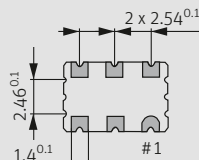
DIMENSIONS



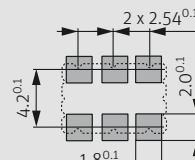
top view



side view



bottom view



pad layout

- # 1: e/d
- # 2: nc
- # 3: ground
- # 4: output 1
- # 5: output 2
- # 6: V_{CC}

pin connection

in mm

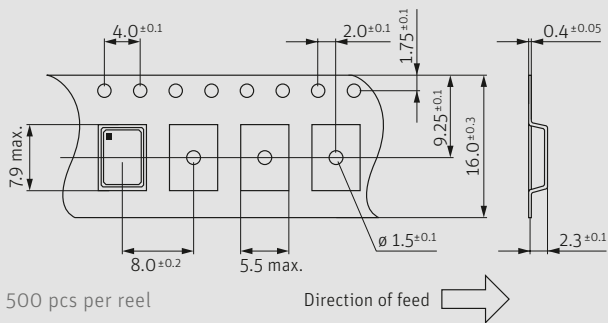
ORDER INFORMATION

0	frequency	type	frequency stability code	supply voltage code	option
Oscillator	40.0 ~ 170.0 MHz > 170 MHz on request	JOE75	see table 1	2.5 = 2.5 V	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C on request

Example: 0 155.520-JOE75-B-2.5-T1-LF (Suffix LF = RoHS compliant / Pb free)

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TAPING SPECIFICATION



in mm

PACKAGING NOTE

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

MARKING

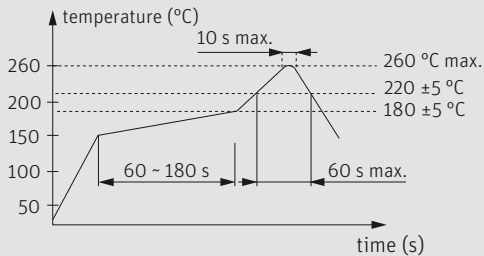
type frequency
company code / date code

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

7: 2017 8: 2018 9: 2019 0: 2020 1: 2021 2: 2022

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