



actual size

Oscillator JOE75 · 30T · LVPECL

- SMD Low Voltage PECL Oscillator, 7.0 x 5.0 mm
- internal 3rd overtone crystal, no PLL
- excellent phase noise (for option -IP, available at 3.3 V)
- wide temperature range
- ceramic / metal package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA

TYPE		JOE75 30T 3.3 V & 2.5 V LVPECL XO
frequency range		65.0 ~ 156.250 MHz
higher frequencies on request		156.250 ~ 200.0 MHz
frequency stability over all*		± 20 ppm ~ ± 100 ppm (see table 1)
current consumption		65 mA max. (3.3 V) / 58 mA max. (2.5 V)
supply voltage V_{DC}		3.3 V ± 5% / 2.5 V ± 5%
temperature	operating	-20 °C ~ +70 °C ~ -40 °C ~ +125 °C
	storage	-55 °C ~ +125 °C
output	rise & fall time	0.6 ns (20% ~ 80% of V_{pp})
	load nom.	50 Ω at V_{DC} ~ 2.0 V
	low level max.	V_{DC} - 1.62 V
	high level min.	V_{DC} - 1.03 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		< 0.5 ps RMS / < 0.2 ps RMS for option -IP
symmetry at 50% of V_{pp}		45% ~ 55% max. / 40% ~ 60% max. T2 & T3

* includes stability at 25 °C, operating temp. range, supply voltage change, shock and vibration, aging 1st year.

** ask if available

TABLE 1: FREQUENCY STABILITY CODE

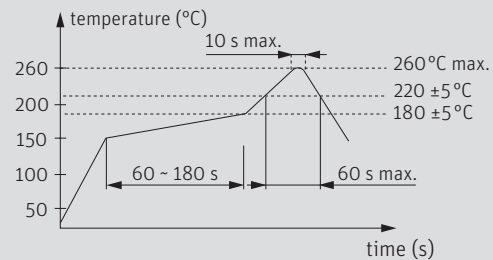
frequency stability code / temp. code*	A	B	C	D
	± 100 ppm	± 50 ppm	± 25 ppm	± 20 ppm
-20 °C ~ +70 °C		○	○	△
-40 °C ~ +85 °C	T1	◇	○	
-40 °C ~ +105 °C	T2**	○	○	
-40 °C ~ +125 °C	T3**	○	○	

◇ standard ○ available △ excludes shock and vibration

ENABLE / DISABLE FUNCTION

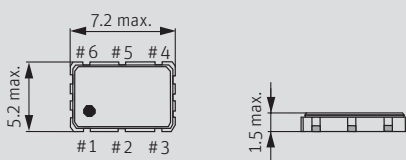
pin #1 (e/d control)	pin #4 / #5 (outputs)
open or ≥ 0.7 V_{CC}	enable
gnd or < 0.3 V_{CC}	high impedance

REFLOW SOLDERING PROFILE



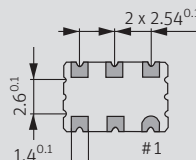
note: parts are also suitable for soldering systems with lead (Pb) content

DIMENSIONS

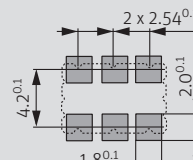


top view

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

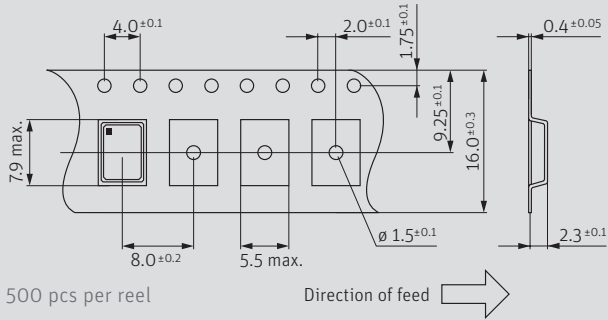
ORDER INFORMATION

0	frequency	type	frequency stability code	supply voltage code	temperature options	improved phase noise
Oscillator	65.0 ~ 156.250 MHz > 156.250 MHz on request	JOE75	see table 1	3.3 = 3.3 V	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C T3 = -40 °C ~ +125 °C	IP = improved phase noise (option for T1 & T2 at 3.3 V)

Example: 0 156.250-JOE75-B-3.3-T1-IP-LF (Suffix LF = RoHS compliant / Pb free)

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TAPING SPECIFICATION



500 pcs per reel

Direction of feed

in mm

PACKAGING NOTE

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

TABLE 2: CURRENT CONSUMPTION MAX.

Current consumption at nominal load:

65.0 ~ 156.250 MHz	58 mA
156.250 ~ 200.0 MHz	65 mA

MARKING

type / stability code / voltage code
frequency

company code / date code

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

1: 2021 2: 2022 3: 2023 4: 2024 5: 2025 6: 2026

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M