



actual size

# Oscillator · PECL · JOE75 · 2.5 V

SMD Oscillator Low Voltage PECL · 7.5 x 5.2 mm

- drives fast PECL logic
- complementary output, low EMI
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



## General Data

type	JOE75 2.5 V
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.: 50Ω 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			
	± 100 ppm	± 50 ppm	± 25 ppm			
-10 °C ~ +70 °C	○	○	▲			
-40 °C ~ +85 °C	○	○				

● standard ○ available ▲ excludes shock & 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

pin connection

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

in mm

## Order Information

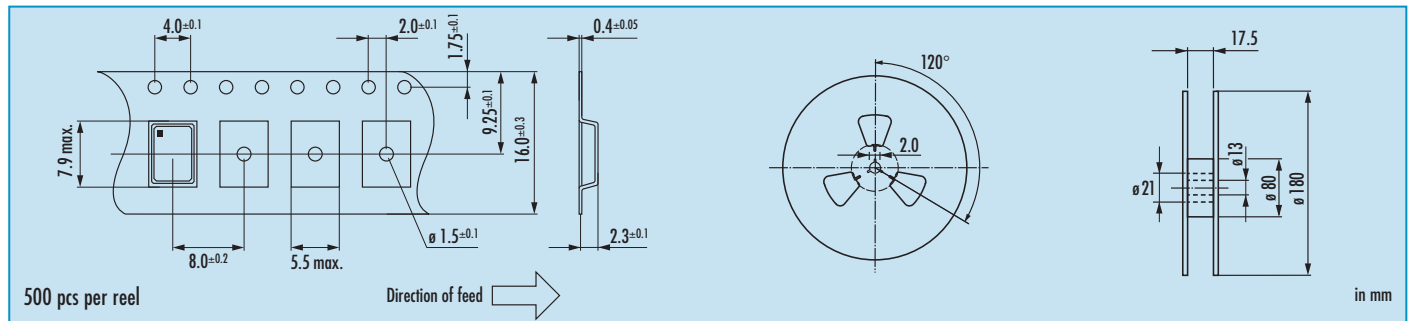
0	frequency in MHz	type	frequency stability code	supply voltage in Volt	option
Oscillator	40.0 ~ 170.0 MHz > 170 MHz on request	JOE75	see table 1	2.5 = 2.5 V	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C on request

Example: O 155.520-JOE75-B-2.5-T1-LF (Suffix LF = RoHS compliant / Pb free pins or pads)



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## Taping Specification



## Packing Note

- standard packing units are 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.  
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

