

actual size



# Oscillator · JCO · 3.3/5.0 V

## Through Hole Crystal Oscillator

### Features

- HCMOS / TTL compatible type
- tristate function
- two package options

### General Data

type	JCO8 / JCO14 3.3 V	JCO8 / JCO14 5.0 V
frequency range	1.0 ~ 125.0 MHz	1.0 ~ 125.0 MHz
frequency stability over all <i>(inclusive stability at 25°C, operating temp. range, input voltage change, aging, shock, vibration)</i>	± 10 ppm ~ ± 100 ppm ( ± 50 ppm standard )	± 10 ppm ~ ± 100 ppm ( ± 50 ppm standard )
current consumption max. <i>(special data on request)</i>	10 mA: 1.00 ~ 29.99 MHz 15 mA: 30.0 ~ 59.99 MHz 20 mA: 60.0 ~ 89.99 MHz 30 mA: 90.0 ~ 125.0 MHz	10 mA: 1.000 ~ 16.99 MHz 25 mA: 17.00 ~ 59.99 MHz 40 mA: 60.00 ~ 89.99 MHz 60 mA: 90.00 ~ 125.0 MHz
supply voltage	3.3 V ± 10 %	5.0 V ± 10 %
rise & fall time max.	6 ns	6 ns
output load	30 pF 1.00 ~ 49.99 MHz 15 pF 50.0 ~ 125.0 MHz	50 pF
output current I <sub>OH</sub> max. I <sub>OL</sub> min.	-2 mA: 15 pF / -4 mA: 30pF 2 mA: 15 pF / 4 mA: 30pF	-16 mA 16 mA
output low level	0.5 V max.	0.5 V max.
output high level	V <sub>DC</sub> -0.5 V	V <sub>DC</sub> -0.5 V
operating temperature	-10 °C ~ +70 °C standard	-10 °C ~ +70 °C standard
storage temperature	-55 °C ~ +125 °C	-55 °C ~ +125 °C
symmetry at 1/2 V <sub>DC</sub>	45 /55 % typ.	45 /55 % typ.

### Preferred Stock Type

Full size: JCO14-3-B  
Half size: JCO8-3-B

### Marking

type  
frequency  
company code / date code

### Enable / Disable Function

pin #1	pin #3
open or high	oscillation
gnd or low	high impedance

e/d delay time: 100 ns max.

### Order Information

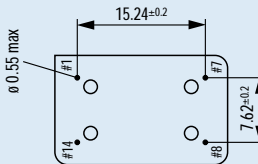
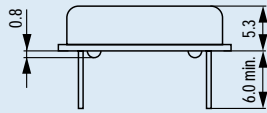
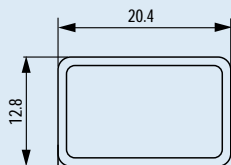
0	frequency in MHz	type	output logic	frequency stability	supply voltage	option
Oscillator	1.0 ~ 125.0 MHz	JCO8 half size JCO14 full size	3 = HCMOS / tristate std. 2 = HCMOS / no tristate 4 = TTL / tristate 1 = TTL / no tristate	B = ± 50 ppm standard A = ±100 ppm C = ± 25 ppm D = ± 20 ppm on request E = ± 15 ppm on request F = ± 10 ppm on request	blank = 5.0 Volt 3.3V = 3.3 Volt	blank = -10 °C ~ + 70 °C standard T1 = -40 °C ~ + 85 °C

Example: O 20.0-JCO14-3-B



# Oscillator · JCO · 3.3V · 5.0 V

## Dimensions JCO14



pin connection JCO 14

# 1: not connected or control

# 7: ground

# 8: output

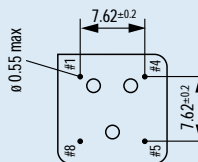
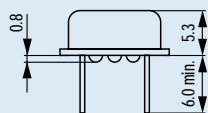
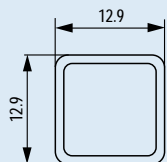
#14: supply voltage

packed in antistatic plastic tubes, 25 pcs

note: ± 10 ppm type package height 8.0 mm

in mm

## Dimensions JCO8



pin connection JCO 8

# 1: not connected or control

# 4: ground

# 5: output

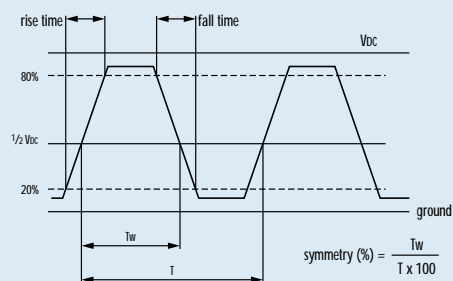
# 8: supply voltage

packed in antistatic plastic tubes, 40 pcs

note: ± 10 ppm type package height 8.0 mm

in mm

## Wave Shape Characteristic



## Environmental Conditions

1. shock: DIN IEC 68-2-27  
Test Ea, 100g, 6 ms, half sine wave, 3 bumps in main directions
2. vibration: DIN IEC 68-2-6  
Test Fc, 10 ~ 500 Hz, 10g, 2 hours in main directions
3. humidity: DIN IEC 68-2-3  
40°C/93% RH for 21 days
4. solderability: DIN IEC 68-2-20  
method 3, solder globule at 325°C