

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 (inclusive stability at 25°C, operating temp. range, input voltage change, aging, shock, vibration)	± 10 ppm ~ ± 100 ppm (± 50 ppm standard)	± 10 ppm ~ ± 100 ppm (± 50 ppm standard)
current consumption max. (special data on request)	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 _{OH} max. I _{OL} 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 _{DC} -0.5 V	V _{DC} -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 _{DC}	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.	

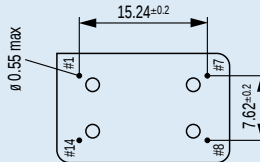
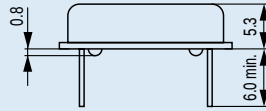
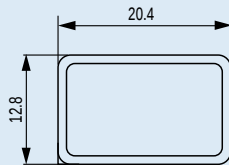
Order Information

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

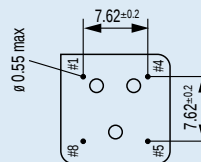
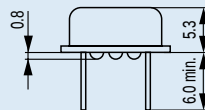
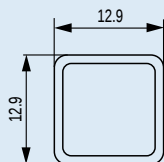
- # 1: not connected or control
- # 7: ground
- # 8: output
- #14: supply voltage

packed in antistatic plastic tubes, 25 pcs

note: ± 10 ppm type package height 8.0 mm

in mm

Dimensions JCO8



pin connection JCO 8

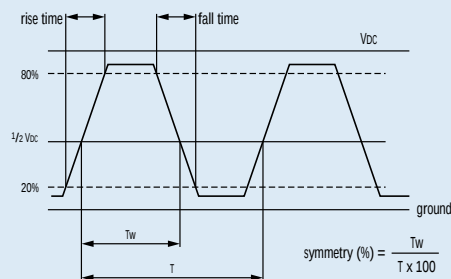
- # 1: not connected or control
- # 4: ground
- # 5: output
- # 8: supply voltage

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