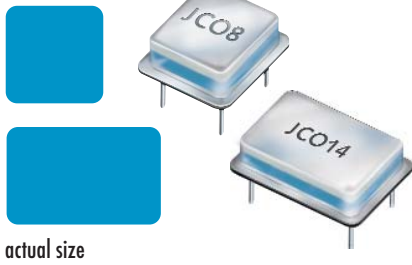


# Oscillator · JCO · 5.0 V

## Pin Type Oscillator



- soldering temperature: 260 °C max.
- metal package

### General Data

| type                              |                  | JCO8 / JCO14 5.0 V                |
|-----------------------------------|------------------|-----------------------------------|
| frequency range                   |                  | 1.0 ~ 160.0 MHz (15pF max.)       |
|                                   |                  | 1.0 ~ 40.00 MHz (15pF~50pF max.)  |
| frequency stability over all      |                  | ± 15ppm ~ ± 100ppm (table 1)      |
| current consumption               |                  | see table 2                       |
| supply voltage V <sub>DC</sub>    |                  | 5.0 V ± 10%                       |
| temperature                       | operating        | -10 °C ~ +70 °C / -40 °C ~ +85 °C |
|                                   | storage          | -55 °C ~ +125 °C                  |
| output                            | rise & fall time | see table 3                       |
|                                   | load max         | 15pF / 50pF                       |
|                                   | current max.     | 16mA                              |
|                                   | low level max.   | +0.5 V                            |
|                                   | high level min.  | V <sub>DC</sub> -0.5 V            |
| output enable time max.           |                  | 10ms                              |
| output disable time max.          |                  | 100ns                             |
| start-up time max.                |                  | 10ms                              |
| standby function                  |                  | optional                          |
| phase jitter 12 kHz ~ 20.0 MHz    |                  | < 1.0ps RMS                       |
| symmetry at 0.5 x V <sub>DC</sub> |                  | 45% ~ 55% typ. (40% ~ 60% max.)   |

Table 1: Frequency Stability Code

| stability code          | A         | B        | G        | C        | D        | E        |
|-------------------------|-----------|----------|----------|----------|----------|----------|
|                         | ± 100 ppm | ± 50 ppm | ± 30 ppm | ± 25 ppm | ± 20 ppm | ± 15 ppm |
| -10 °C ~ +70 °C         | ○         | ●        | ○        | ○        | ○        | ○        |
| -40 °C ~ +85 °C         | ●         | ○        | ○        | ○        |          |          |
| ● standard ○ on request |           |          |          |          |          |          |

Table 2: Current Consumption max.

| Current at 15pF load: |       | Current at 50pF load: |       |
|-----------------------|-------|-----------------------|-------|
| 1.0 ~ 29.9 MHz        | 15 mA | 1.0 ~ 19.9 MHz        | 20 mA |
| 30.0 ~ 49.9 MHz       | 25 mA | 20.0 ~ 40.0 MHz       | 35 mA |
| 50.0 ~ 89.9 MHz       | 40 mA |                       |       |
| 90.0 ~ 124.9 MHz      | 50 mA |                       |       |
| 125.0 ~ 160.0 MHz     | 60 mA |                       |       |

Table 3: Rise & Fall Time max.

|                           |  |
|---------------------------|--|
| 6.0 ns: 1.0 ~ 49.9 MHz    | <b>note:</b><br>- specific data on request<br>- rise time: 0.1 V <sub>DC</sub> ~ 0.9 V <sub>DC</sub><br>- fall time: 0.9 V <sub>DC</sub> ~ 0.1 V <sub>DC</sub> |
| 5.0 ns: 50.0 ~ 79.9 MHz   |  |
| 4.0 ns: 80.0 ~ 99.9 MHz   |  |
| 3.0 ns: 100.0 ~ 160.0 MHz |  |
|                           |  |

### Dimensions JCO14 / JCO8

**JCO14**

pin connection  
 # 1: not connected or e/d  
 # 7: ground  
 # 8: output  
 #14: supply voltage

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**JCO8**

pin connection  
 # 1: not connected or e/d  
 # 4: ground  
 # 5: output  
 # 8: supply voltage

in mm

### Order Information

|            |                 |               |                            |                     |                     |   |
|------------|-----------------|---------------|----------------------------|---------------------|---------------------|---|
| <b>0</b>   | frequency       | type          | e/d function               | frequency stability | supply voltage code | option  |
| Oscillator | 1.0 ~ 160.0 MHz | JCO8<br>JCO14 | 2 = no<br>3 = yes/tristate | see table 1         | blank = 5.0 Volt    | blank = -10 °C ~ +70 °C<br>T1 = -40 °C ~ +85 °C |

**Example: O 20.0-JCO8-3-A-T1** (LF = RoHS compliant / Pb free pins or pads)



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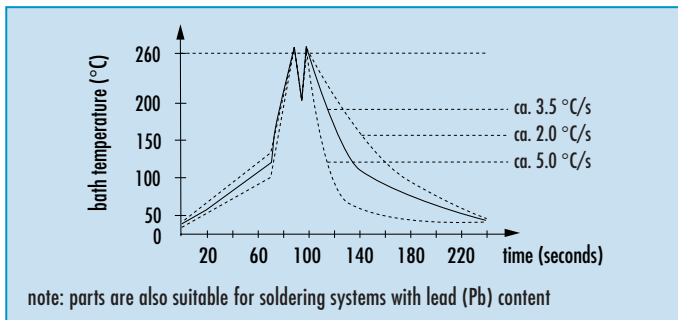
## Enable / Disable Function

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

## Marking

type  
frequency  
company code / date code

## Wave Soldering Profile



## Preferred Type

JCO8-3-B  
JCO14-3-B

## Packaging

JCO8-3-B packed in antistatic plastic tubes, 40 pcs  
JCO14-3-B packed in antistatic plastic tubes, 25 pcs