



actual size

Oscillator · JO22 · 1.8 V

SMD Oscillator with Stop Function · 2.5 x 2.0 mm

- very low current consumption
- HCMOS/LVCMOS output
- reflow soldering temperature: 260 °C max.
- ultra flat ceramic / metal package



General Data

type	JO22 1.8 V	
frequency range	0.75 ~ 50.0 MHz	
frequency stability over all*	± 25 ppm ~ ± 100 ppm	
	see table 1	
current consumption	see table 2	
supply voltage V _{DC}	1.8 V ± 5%	
temperature	operating	-20 °C ~ +70 °C up to -40 °C ~ +105 °C
	storage	-55 °C ~ +105 °C
output	rise & fall time	see table 3
	load max.	15 pF
	current max.	4 mA
	low level max.	0.4 V
	high level min.	V _{DC} - 0.4 V
output enable time max.	10 ms	
output disable time max.	50 μs	
start-up time max.	10 ms	
standby function	stop	
standby current max.	10 μA	
phase jitter 12 kHz ~ 20.0 MHz	< 1.0 ps RMS	
symmetry at 0.5 x V _{DC}	45% ~ 55% typ. (40% ~ 60% max.)	

Table 1: Frequency Stability Code

stability code	A	B	G	C		
	± 100 ppm	± 50 ppm	± 30 ppm	± 25 ppm		
-20 °C ~ +70 °C		○	○	△		
-40 °C ~ +85 °C	○	○	○			
-40 °C ~ +105 °C	○	○				

● standard ○ available △ excludes aging

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

Table 2: Current Consumption max.

1.8 V: current at 15pF load:	
0.75 ~ 19.9 MHz	2 mA
20.00 ~ 39.9 MHz	3 mA
40.00 ~ 50.0 MHz	4 mA

Table 3: Rise & Fall Time max.

6 ns: 0.75 ~ 50.0 MHz	note: - specific data on request - rise time: 0.1 V _{DC} ~ 0.9 V _{DC} - fall time: 0.9 V _{DC} ~ 0.1 V _{DC}
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Dimensions

pin connection
 # 1: e/d
 # 2: ground
 # 3: output
 # 4: V_{DC}

in mm

Order Information

0	frequency	type	frequency stability code	supply voltage code	output load code	option
Oscillator	0.75 ~ 50.0 MHz	JO22	see table 1	1.8 = 1.8V	1 = 15 pF	blank = -20 °C ~ +70 °C T1 = -40 °C ~ +85 °C T2 = -40 °C ~ +105 °C

Example: O 20.0-JO22-B-1.8-1-T1-LF (LF = RoHS compliant / Pb free pins or pads)