



actual size

Oscillator · JO53 · 1.8 V

SMD Oscillator with Stop Function · 5.0 x 3.2 mm

- high temperature version available
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



General Data

type	JO53 1.8 V	
frequency range	0.50 ~ 125.0 MHz (15 pF max.)	
	0.50 ~ 40.0 MHz (30 pF max.)	
	2.00 ~ 50.0 MHz (15 pF max. for T2 & T3*)	
frequency stability over all**	± 20 ppm ~ ± 100 ppm (table 1)	
current consumption	see table 2	
supply voltage V _{DC}	1.8 V ± 5%	
temperature	operating	-10 °C ~ +70 °C
		-40 °C ~ +85 °C
		-40 °C ~ +105 °C
		-40 °C ~ +125 °C ask if available
	storage	-55 °C ~ +125 °C
output	rise & fall time	see table 3
	load max.	15 pF / 30 pF (≤ +85 °C and ≤ 40.0 MHz)
	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 ns / 200 ns (T2 & T3*)	
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% (40% ~ 60% max.)	

* ask if available

Table 1: Frequency Stability Code

stability code		A	B	G	C	D
		± 100 ppm	± 50 ppm	± 30 ppm	± 25 ppm	± 20 ppm
-10 °C ~ +70 °C	STD.		●	○	○	Δ
-40 °C ~ +85 °C	T1	●	●	○	○	
-40 °C ~ +105 °C	T2	○	○			
-40 °C ~ +125 °C	T3*	■				

● standard ○ available ■ ask if available Δ excludes aging

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

Table 2: Current Consumption max.

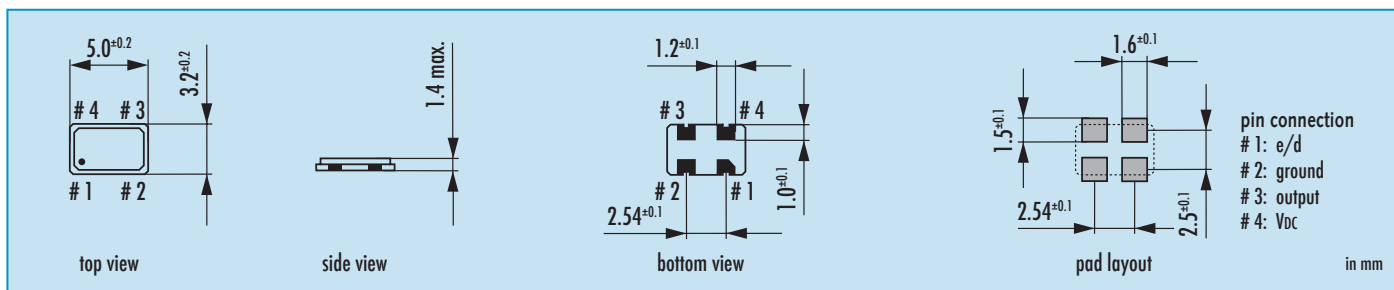
Current at 15 pF load		Current at 30 pF load	
0.5 ~ 29.9 MHz	7 mA	0.5 ~ 29.9 MHz	10 mA
30.0 ~ 39.9 MHz	7 mA	30.0 ~ 40.0 MHz	10 mA
40.0 ~ 89.9 MHz	20 mA		
90.0 ~ 125.0 MHz	25 mA		

Table 3: Rise & Fall Time max.

at 15 pF	at 30 pF
6 ns: 0.50 ~ 29.99 MHz	8 ns: 0.50 ~ 40.00 MHz
5 ns: 30.00 ~ 39.99 MHz	
5 ns: 40.00 ~ 49.99 MHz	
4 ns: 50.00 ~ 69.99 MHz	
3 ns: 70.00 ~ 125.00 MHz	

note: rise time: 0.1 V_{DC} ~ 0.9 V_{DC} / fall time: 0.9 V_{DC} ~ 0.1 V_{DC}
specific data on request

Dimensions



Order Information

