EUROQUARTZ

HJ53 Oscillators

5 x 3.2mm SMD Dual Frequency Oscillator

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FEATURES

- Dual frequencies always available
- Miniature 5.0 x 3.2mm package
- Frequency Range 1.0MHz to 200MHz
- Low supply current
- Supply voltage range, 1.8, 2.5V or 3.3 Volts •

DESCRIPTION

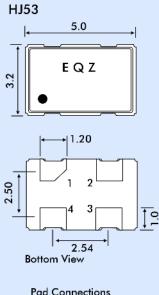
HC53 oscillators provide dual frequencies from one oscillator.

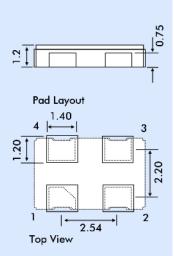
SPECIFICATION

Power Supply Voltage:		+1.8V, +2.5V or +3.3 VDC±5%	
Frequency			
	Vdd = +1.8V:	Option 1/2 = 1MHz to 133MHz	
	Vdd = +2.5V:	Option $1/2 = 1$ MHz to 166 MHz	
	Vdd = +3.3V:	Option $1/2 = 1$ MHz to 200MHz	
Package:		5.0 x 3.2mm Ceramic Leadless SMD	
Frequency Stability over Temperature*			
	-10° to +70°C:	±15ppm, ±25ppm, or ±50ppm	
		±25ppm, ±50ppm, ±100ppm	
Output Load:		15pF max (CMOS)	
Current Consumption:		From 4mA to 50mA	
		Frequency dependent	
Duty Cycle:		50%±5%.	
/ _ /		Measured at 50%Vdd, CL = 15pF	
High Level Output Voltage (VOH)			
		2.90V min., condition IOH = -4mA	
Low Level Output Voltage (VOL)			
(Vdd = +3.3V): 0.40V max., condition IOL = +4mA			
Rise Time (tr):	\ /	2.5ns max., 0.1Vdd to 0.9Vdd	
		15pF load, 3.3 V supply	
Fall Time (tf):		2.5ns max., 0.9Vdd to 0.1Vdd	
		15pF load, 3.3 V supply	
Start-Up Time:		10ms maximum	
Ageing:		±5ppm max. first year	
Agenig.		<±2ppm per year thereafter	
Tape & Reel		16mm tape, 180mm reel	
Tupe & Reel		1000 pieces per reel	
		1000 hieres hei iegi	

* Inclusive of 25°C calibration, tolerance, operating temperature range, input voltage variation, load change, ageing, shock and

OUTLINE & DIMENSIONS





Pad Connections

- 1 Output 1
- 2 Ground
- 3 Output 2
- 4 Supply Voltage

ENVIRONMENTAL SPECIFICATION

RoHS Status:	RoHS Compliant and pB free
Moisture Sensitivity Level:	Level 1 (Infinite) according to IPC/JEDEC J-STD-020D.1
Operating Temperature Range:	-10° to +70°C or -40° to +85°C
Storage Temperature Range:	-55° to +125°C
Humidity:	85% RH, 85°C, 48 hours
Fine Leak:	MIL-STD-883, method 1014 Condition A
Gross Leak:	MIL-STD-883, method 1014 Condition C
Solderability:	MIL-STD-202F method 208E
Reflow:	260°C for 10 seconds
Vibration:	MIL-STD-202F method 204
	35g , 50 to 2000Hz.
Shock:	MIL-STD-202F method 213B
	test cond. E, 1000g ½ sinewave
Resistance to Solvents:	MIL-STD-202, method 215
Temperature Cycling:	MIL-STD-883, method 1010
ESD Rating:	2kV max. Human body model
Pad Surface Finish:	Gold (Au 0.3%µm min.) over
	nickel (N 1.27µm to 8.89µm)
Total Weight:	65mg per unit typical

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SOLDER TEMPERATURE PROFILE

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Peak Temperature Topside of board to be 230° min., 248°C max. 250-Liquidus Temperature 217 200-Temperature °C Flux Activation Time above 217°C 150 Temperatur 30 ~60s max. Ramp Up at 2°C/sec. max. Ramp Down 100 at 4°C/sec. max. 50 Soaking Zone Reflow Pre heat 1 Pre heat 2 Zone Cooling Time 90 120 150 180 210 240 270 300 330 (sec.) 30 60 Soaking Temperature: 140° ~ 200°C Soaking Time: 90 ~ 120 seconds

PART NUMBER FORMAT

Example: 3HJ53D-32.0/120.0

