

SURFACE MOUNT OSCILLATOR RSO53 series - 5.0x3.2x1.3 mm

The **RSO53** series is an ultra miniature package clock oscillator with size of 5.0x3.2x1.3 mm. It is mainly used in portable PC and telecommunication devices and equipment.

Features

- 5.0x3.2x1.3 Miniature Package
- Tri-State Enable / Disable
- TTL / HCMOS compatible
- Tape and Reel
- IR Re-flow
- 5.0V & 3.3V Input Voltage
- 2.5V & 1.8V Option

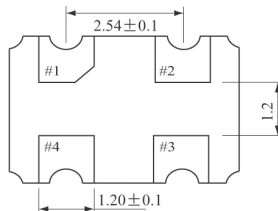
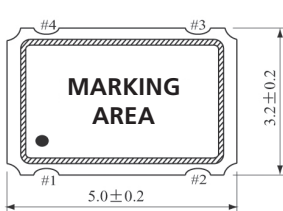


Electrical Specifications

Parameter	Condition	RSO53-5	RSO53-3	RSO53-2	RSO53-1		
Frequency Range	F _o	1.544 MHz~125.000 MHz					
Frequency Stability*	All Condition*	±25ppm / ±50ppm / ±100ppm (A, B, C)					
Operating Temperature Range	T _{OPR}	0°C~70°C / -20°C~70°C (-40°C~+85°C option)					
Storage Temperature Range	T _{STG}	-55°C~+125°C					
Power supply Voltage	V _{DD}	5.0V+/-10%	3.3V+/-10%	2.5V+/-10%	1.8V+/-10%		
Aging (First Year)	25°C±3°C	±5ppm					
Supply Current	I _{DD}	1.544MHz to 9.999MHz 10.000MHz to 34.999MHz 35.000MHz to 49.999MHz 50.000MHz to 125.000MHz	15mA max. 20mA max. 35mA max. 40mA max.	8mA max. 10mA max. 25mA max. 35mA max.	7mA max. 8mA max. 20mA max. 30mA max.	6mA max. 7mA max. 15mA max. 25mA max.	
Output Symmetry	Sym	At 1/2V _{DD} 40/60% (45/55% option)					
Rise time	T _r	10%V _{DD} ~90%V _{DD}		5nS max.	7nS max.	6nS max.	5nS max.
Fall Time	T _f	90%V _{DD} ~10%V _{DD}		5nS max.	7nS max.	6nS max.	5nS max.
Output Voltage	V _{OH} V _{OL}	90%V _{DD} min. 10%V _{DD} max.					
Output Load	HCMOS Load	30pF max. (15pF typ.)					
Start-up Time	T _s	10mS max.					
Pin 1, tri-state function		Pin 1=H or open -> Output active at pin3 Pin 1=L -> High impedance at pin 3					

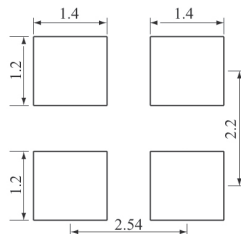
* Include: 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

Mechanical Dimensions (mm)



Pin Connection

- #1 Tri-State/NC
- #2 GND
- #3 Output
- #4 +5.0VDC / +3.3VDC (2.5VDC & 1.8VDC)



Recommended Solder Pattern

**Note: A 0.01uF bypass capacitor should be placed between VDD (Pin 4) and GND (Pin 2) to minimize power supply line noise