

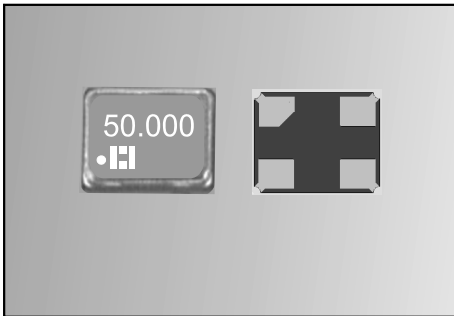


SMD CRYSTAL OSCILLATOR



• HXO-S Series

3.2X2.5X1.2 mm



FEATURES

The HXO-S series is an ultra miniature package clock oscillator with size of 3.2X2.5X1.2mm. It is mainly used in portable PC and telecommunication devices and equipment.

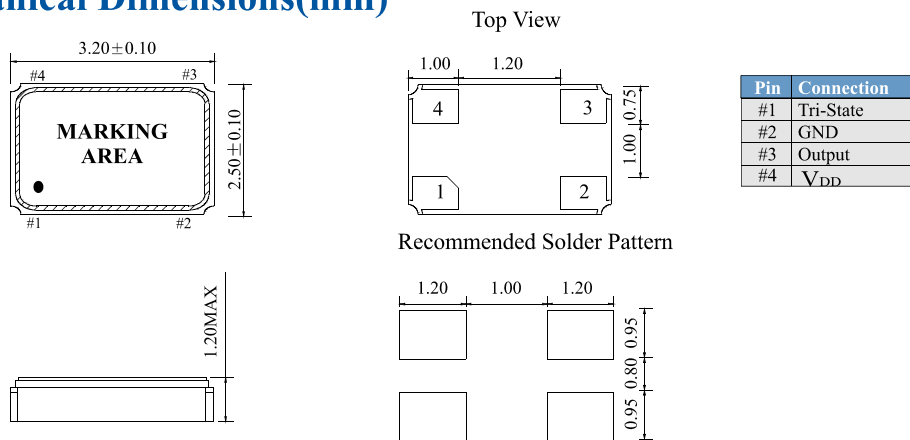
- 3.2X2.5X1.2 Miniature Package
- Tri-State Enable/Disable
- TTL/HCMOS compatible
- Tape and Reel
- IR Re-flow
- 5.0V,3.3V,2.8V and 1.8V option

Electrical Specifications

Parameter	Condition	HXO-SF	HXO-SC	HXO-SD	HXO-SE	
Frequency Range	F0	1MHz~54MHz				
Frequency Stability*	All Condition	± 25ppm, ± 50ppm, ± 100ppm				
Operating Temperature Range	T _{OPR}	-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%	2.8V+/-10%	1.8V+/-10%	
Supply Current	I _{DD}	1MHz to 9.999MHz	15mA Max	8mA Max	7mA Max	6mA Max
		10MHz to 34.999MHz	20mA Max	10mA Max	8mA Max	7mA Max
		35MHz to 49.999MHz	35mA Max	25mA Max	20mA Max	15mA Max
		50MHz to 54.000MHz	40mA Max	35mA Max	30mA Max	25mA Max
Output Symmetry	Sym	At 1/2V _{DD}				
Rise time	T _r	10%V _{DD} ~90%V _{DD}				
Fall Time	T _f	90%V _{DD} ~10%V _{DD}				
Output Voltage	V _{OH} V _{OL}	90% V _{DD} Min				
		10% V _{DD} Max				
Output Load	HCMOS Load	15pF Typ.				
Start Time	T _s	10mS Max				
Stand-by Function		Yes				
Aging(First Year)	25°C ± 3°C	± 2ppm Max				
Pin 1,tri-state function		Pin 1=H or open....Output active at pin 3				
		Pin 1=L.....high impedance at pin 3				
Packing Unit		3000pcs/reel				

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

Mechanical Dimensions(mm)



**Note: A 0.01uF bypass capacitor should be placed between V_{DD}(Pin4) and GND(Pin2) to Minimize power supply line noise