

- Ultra-miniature 3.2 x 2.5 x 0.95mm package
- Frequency Range 1.0MHz to 54.0MHz
- Tristate (Enable/Disable) function as standard
- Supply voltage 1.8, 2.5 or 3.3 Volts

DESCRIPTION

XO32 ultra-miniature oscillators consist of a TTL/CMOS-compatible hybrid circuit and a miniature quartz crystal packaged in a low-profile, industry-standard ceramic package. The package provides a fully specified clock oscillator with a very small footprint.

SPECIFICATION

Frequency Range:	1.0MHz to 54.0MHz
Supply Voltage:	1.8, 2.5 or 3.3 Volts $\pm 5\%$
Output Logic:	HCMOS/LSTTL
Frequency Stability:	See table
Rise/Fall Time:	2ns typical. (Frequency dependant)
Output Voltage:	
HIGH '1':	90%Vdd minimum
LOW '0':	10%Vdd maximum
Output Load	15pF (50pF available for 3.3V supply)
Duty Cycle:	50% $\pm 5\%$ typical
Supply Current:	See table
Operating Temperature	
Commercial:	0° to +70°C
Industrial:	-40° to +85°C
Storage Temperature:	-55 to +100°C
Start-up Time:	10ms max.
Ageing:	± 5 ppm max. in first year at 25°C
Phase Jitter RMS:	10ps typical
Tristate Function (Pad 1):	Enable/Disable function is standard for XO32. Output (Pad 3) is active if Pad 1 is not connected or Pad 1 is 'HIGH'. Output is high impedance when 'LOW' or GROUND is applied to Pad 1.
Packaging:	8mm tape, 178mm reel, 1k pieces

Note: Parameters are measured at ambient temperature of 25°C, supply voltage as stated and a load of 15pF

CURRENT CONSUMPTION

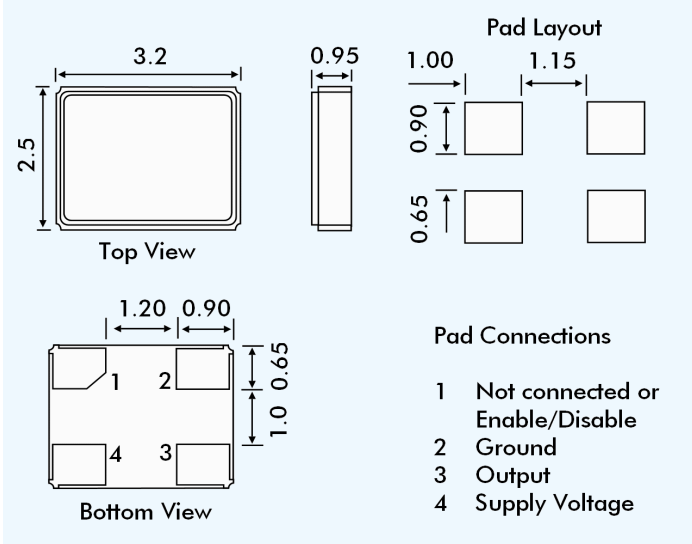
Supply Voltage	Frequency Range	Current Consumption*
1.8 Volts	1.0~1.5MHz	5mA
	1.5~20MHz	8mA
	20~50MHz	15mA
2.5 Volts	50MHz+	22mA
	0.3~1.5MHz	5mA
	1.5~20MHz	8mA
	20~50MHz	15mA
3.3 Volts	50MHz+	25mA
	0.3~1.5MHz	5mA
	1.5~20MHz	8mA
	20~50MHz	15mA
	50MHz+	35mA

* Current consumption quoted is maximum

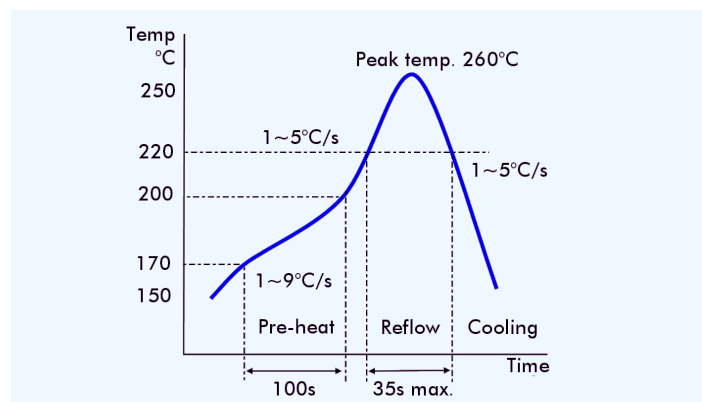
3.2 x 2.5 x 0.95mm SMD HCMOS



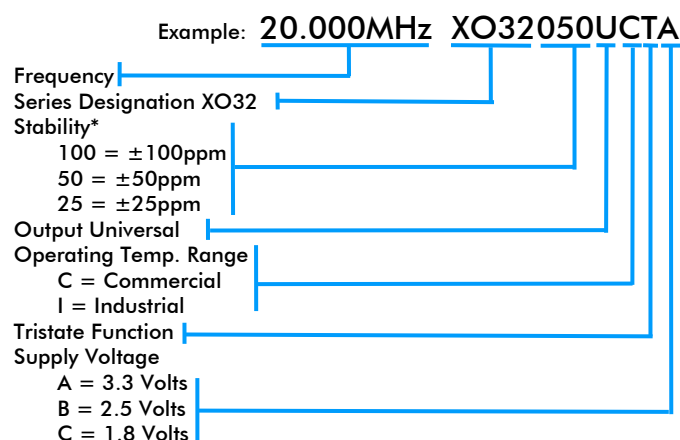
OUTLINE & DIMENSIONS



SOLDER TEMPERATURE PROFILE



PART NUMBERING



* For other stability requirements enter figure required.