

FEATURES

- Ultra-miniature 2.5 x 2.0 x 0.90mm package
- Frequency Range 0.75MHz to 75.0MHz
- Tristate (Enable/Disable) function as standard
- Supply voltage 1.8, 2.5 or 3.3 Volts

DESCRIPTION

XO22 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:	0.75MHz to 75.0MHz
Supply Voltage:	1.8, 2.5 or 3.3 Volts $\pm 5\%$
Output Logic:	HCMOS/LSTTL
Frequency Stability:	See table
Rise/Fall Time:	10ns max.
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
Tristate Function (Pad 1):	Enable/Disable function is standard for XO22. Output (Pad 3) is active if Pad 1 not connected or Pad 1 is 'HIGH'. Output high impedance when 'LOW' or GROUND is applied to Pad 1.
Packaging:	8mm tape, 180mm reel, 1k or 2k pieces per reel

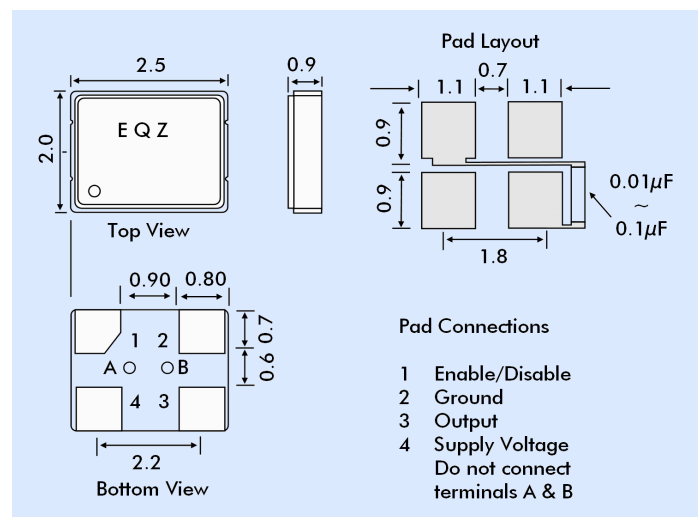
Note: Parameters are measured at ambient temperature of 25°C, supply voltage as stated and a load of 15pF

CURRENT CONSUMPTION

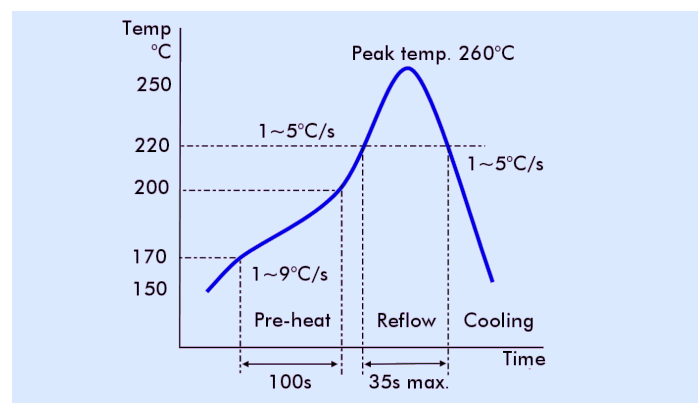
Supply Voltage	Frequency Range	Current Consumption
1.8 Volts	0.5~30MHz	2.5mA max.
	30~40MHz	3.0mA max.
	40~50MHz	15mA max.
2.5 Volts	0.75~20MHz	5mA max.
	20~40MHz	9mA max.
	40~60MHz	11mA max.
3.3 Volts	60~75MHz	14mA max.
	0.75~20MHz	7mA max.
	20~40MHz	13mA max.
	40~60MHz	19mA max.
	60~75MHz	24mA max.



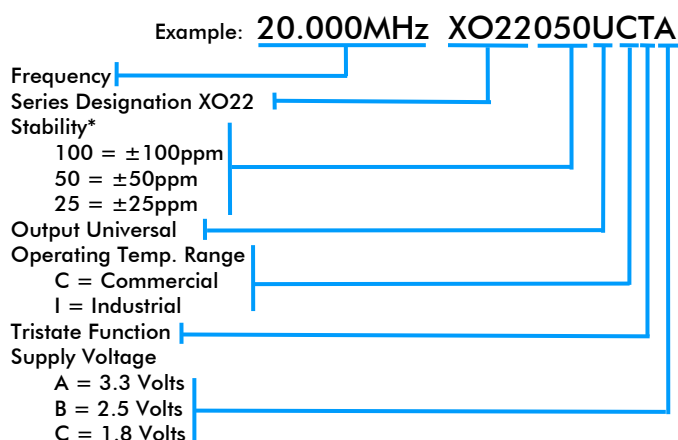
OUTLINE & DIMENSIONS



SOLDER TEMPERATURE PROFILE



PART NUMBERING



* For other stability requirements enter figure required.