

5 x 3.2mm Low Power Consumption Clock Oscillator

FEATURES

- Micro-miniature 5.0mm x 3.2mm package, small footprint
- Frequency Range 2.5MHz to 125MHz
- Tristate function standard
- Supply voltage range 2.5V, 3.3 or 5.0Volts

DESCRIPTION

The XO53 microminiature oscillators have a small footprint but a full specification. The oscillator is available with supply voltage at 2.5 3.3 Volts or 5.0 Volts.

SPECIFICATION

| | | | |
|--|---|------------|-----------|
| Frequency Range: | 2.50MHz to 125.0MHz | | |
| Supply Voltage: | 2.5 Volts, 3.3 Volts or 5.0 Volts | | |
| Output Logic: | LSTTL/CMOS | | |
| Frequency Stability over Temperature Range | | | |
| 0° to +50°C: | from ±10ppm | | |
| 0° to +70°C: | from ±15ppm | | |
| -55° to +125°C: | from ±25 | | |
| Rise/Fall Time: | 2ns typical (10% to 90%Vdd) (frequency dependant) | | |
| Output Voltage: | 2.5V | 3.3V | 5.0V |
| HIGH '1': | 2.4V min | 2.97V min. | 4.5V min |
| LOW '0': | 0.2V min | 0.33V max. | 0.5V max. |
| Output Load | | | |
| CMOS: | 15pF | | |
| TTL: | 10 LSTTL loads | | |
| Duty Cycle: | 50%±10% (50%±5% available) | | |
| Supply Current: | See table | | |
| Startup Time | | | |
| 2.5MHz to 32MHz: | 5ms max. | | |
| 32+MHz to 125MHz: | 10ms max. | | |
| Ageing: | ±5ppm max. per year | | |
| Phase Jitter RMS: | 10ps typical | | |
| Enable Time: | 100ms max. | | |
| Disable Time: | 100ns max. | | |

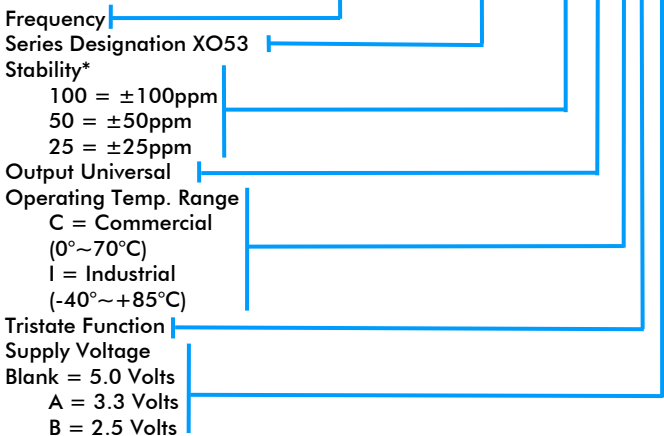
Tristate Function (Pad 1):

Output (Pad 3) is active if Pad 1 is not connected or a voltage of 2.2V or greater is applied to Pad 1. Output is high impedance when a voltage of 0.8V or lower is applied to Pad 1.

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

PART NUMBERING

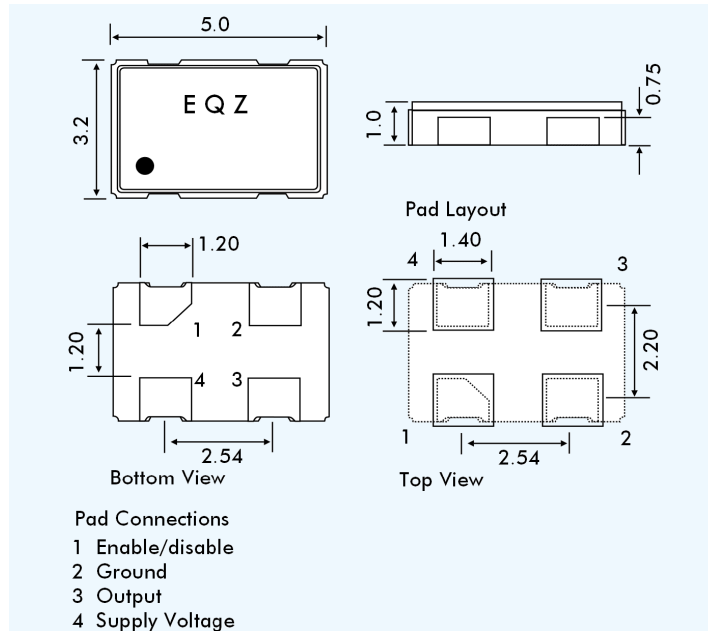
Example: **27.000MHz XO53050UCTA**



* For other stability requirements enter figure required.



OUTLINE & DIMENSIONS



CURRENT CONSUMPTION

| Frequency Range | Supply Voltage (±10%) | | |
|-----------------|-----------------------|-------|-------|
| | +2.5V | +3.3V | +5.0V |
| 2.5 ~ 32MHz | 6mA | 8mA | 15mA |
| 32+~40MHz | 12mA | 15mA | 25mA |
| 40+~125MHz | 30mA | 35mA | 40mA |

SOLDER TEMPERATURE PROFILE

