

XTAL

CLK OSC

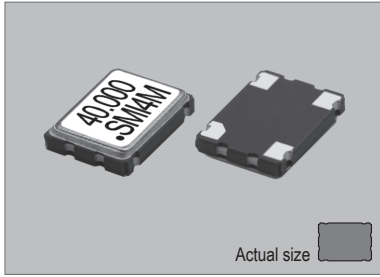
VCCO

TCXO

OCXO

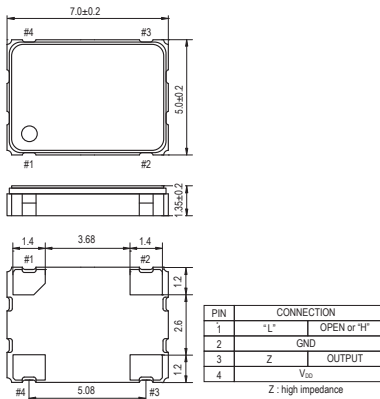
MCF

SXO-7050

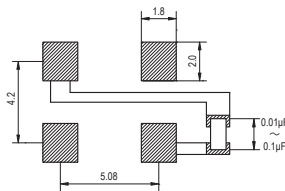


Actual size
0.157 gm (wt.)

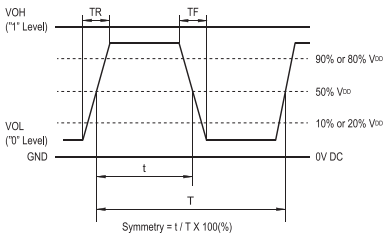
SXO-7050



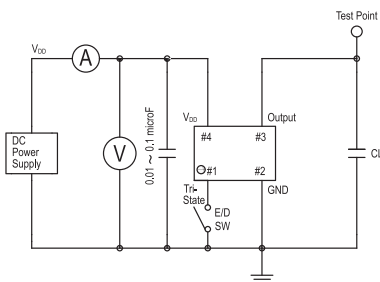
SOLDERING PATTERN



OUTPUT WAVEFORM



TEST CIRCUIT



CL: including fixture and probe capacitance.

STANDARD SPECIFICATIONS

- CMOS OUTPUT
- HIGH STABILITY TCXO
- PACKAGE SIZE 7.0x5.0 mm

Item	Specifications	
General part number	SXO-7050*1	
Frequency range	4.000 MHz to 54.000 MHz	
Frequency Stability	Frequency tolerance at +25°C ±2°C	±1.5 ppm max. (1 hour after reflow soldering)
	Temperature range	±2.5 ppm max. over -30°C to +75°C (referred to +25°C)*2
	Input voltage change	±0.2 ppm max. at V _{DD} ±5% DC
	Output load change	±0.2 ppm max. at 15 pF ±10%
	Aging	±1 ppm max. per year at +25°C ±3°C
Operating Conditions	Operating temperature	-30°C to +75°C (Standard) -40°C to +85°C (W = Option, frequency dependent)
	Supply voltage (V _{DD})	D = +1.8V*2, F = +2.5V, H = +2.8V, K = +3.3V DC ±5%
Absolute Max. Ratings	Stand-by control voltage(Pin#1)	V _{IH} : 80% V _{DD} min. V _{IL} : 20% V _{DD} max.*2
	Supply voltage	-0.5V to +4V DC
Input current (max. mA)	Storage temperature	-55°C to +100°C
Stand-by current*3		10 µA max. (Pin#1 = V _{IL})
	Symmetry	45% to 55% at 50% V _{DD} level
	Rise and fall times	5 ns max. (10% V _{DD} to 90% V _{DD} level)
	"0" level	V _{OL} : 10% V _{DD} max.
	"1" level	V _{OH} : 90% V _{DD} min.
Output (-40°C to +85°C)	Load	15 pF max. (CMOS)
Disable delay time	200 ns max.	
Enable delay time	10 ms max.	
Start-up time	10 ms max.	
SSB phase noise	-145 dBc / Hz, Typical at 10 kHz offset	
Reflow condition	+250°C ±10°C for 10 seconds +175°C ±10°C for 1 to 2 minutes (preheating)	
Standard frequencies (MHz)	16.000, 19.200, 20.000, 22.000, 24.000, 25.000, 32.000, 40.000, 44.000	

(*1) Final part number to be assigned with package type, input voltage, operating temperature and frequency.
e.g. SXO-7050-K-S-44MHz

(*2) V_{DD} = +1.8V available for only allowor ±5 ppm max. of frequency stability.

(*3) Internal crystal oscillation to be halted (Pin#1 = V_{IL}).

PACKAGE DATA

Item	Package	SXO-7050
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS

