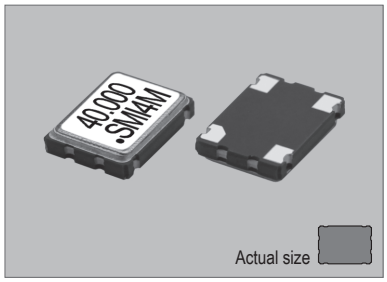
SXO-7050 (+1.8V, +2.5V, +2.8V & +3.3V FIXED MODELS) 7.0x5.0 mm

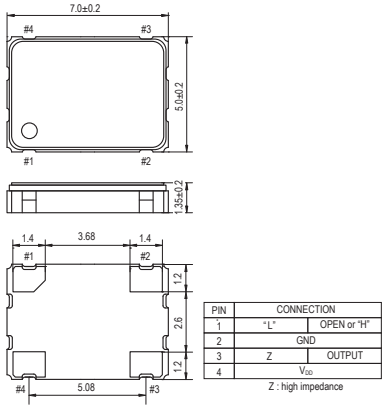
STANDARD SMD TCXO

SXO-7050



0.157 gm (wt.)

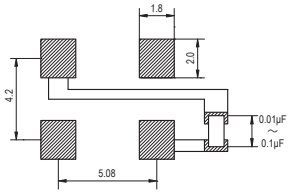
SXO-7050



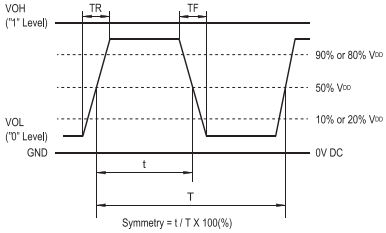
PIN	CONNECTION	
1	"L"	OPEN or "H"
2	GND	
3	Z	OUTPUT
4	V_{DD}	

Z : high impedance

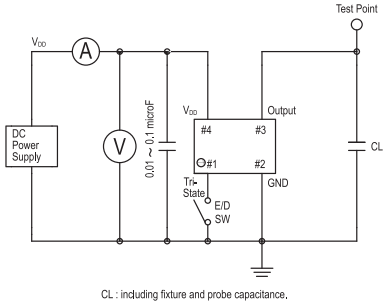
SOLDERING PATTERN



OUTPUT WAVEFORM



TEST CIRCUIT



CL : including fixture and probe capacitance.

STANDARD SPECIFICATIONS

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

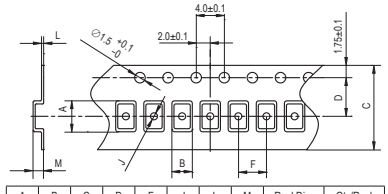
Item		Specifications
General part number		SXO-7050*1
Frequency range		4.000 MHz to 54.000 MHz
Frequency Stability	Frequency torelance at +25°C ±2°C	±1.5 ppm max. (1 hour after reflow soldering)
	Temperature range	±2.5 ppm max. over -30°C to +75°C (referred to +25°C)*2
	Input voltage change	±0.2 ppm max. 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%
	Stand-by control voltage(Pin#1)	V_{IH} : 80% V_{DD} min. V_{IL} : 20% V_{DD} max.*2
Absolute Max. Ratings	Supply voltage	-0.5V to +4V DC
	Storage temperature	-55°C to +100°C
Input current (max. mA)		4 to 10 MHz / 10 to 20 MHz / 20 to 30 MHz / 30 to 40 MHz / 40 to 54 MHz +1.8V*2: 3.1 / 3.7 / 4.2 / 4.6 / 5.5 +2.5V: 3.1 / 3.7 / 4.2 / 4.6 / 5.5 +2.8V: 3.4 / 4.1 / 4.7 / 5.2 / 6.0 +3.3 V: 4.0 / 4.8 / 5.5 / 6.0 / 7.0
Stand-by current*3		10 µA max. (Pin#1 = V_{IL})
Output (-40°C to +85°C)	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.
	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 allover ±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



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
7.4	5.4	16.0	7.5	8.0	2.0	0.3	1.9	180	1000pcs

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