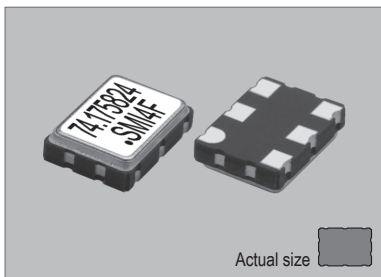
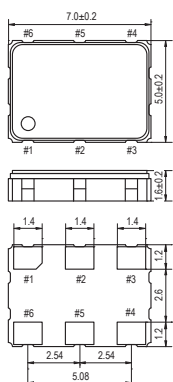


97SMOVH



Actual size 0.182 gm (wt.)

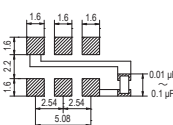
97SMOVH



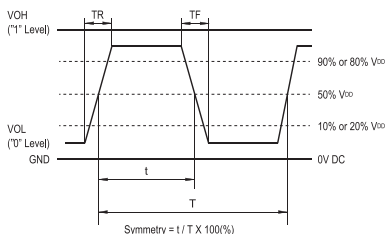
PIN	CONNECTION
1	Vcontrol
2	"L" OPEN or "H"
3	GND
4	OUTPUT
5	N.C.
6	VDD

Z: high impedance

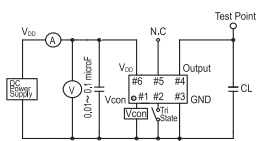
SOLDERING PATTERN



OUTPUT WAVEFORM



TEST CIRCUIT



CL: including fixture and probe capacitance.

STANDARD SPECIFICATIONS

- CMOS OUTPUT
- WIDE FREQUENCY RANGE
- PACKAGE SIZE 7.0x5.0 mm

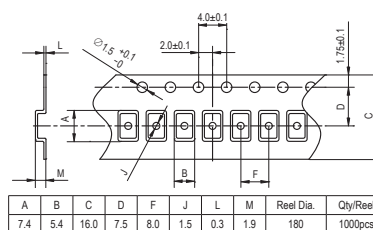
Item	Specifications
General part number	97SMOVH*1
Frequency range	1.250 MHz to 170.000 MHz
Frequency stability (over all conditions)	97SMOVH(3.3VB): ±50 ppm over -20°C to +70°C
	97SMOVH(3.3VC): ±30 ppm over -20°C to +70°C
	97SMOVH(3.3VD): ±25 ppm over -20°C to +70°C
	97SMOVH(3.3VE): ±20 ppm over -20°C to +70°C
	97SMOVH(3.3VBW): ±50 ppm over -40°C to +85°C
	97SMOVH(3.3VWD): ±25 ppm over -40°C to +85°C
Vcon = 1/2 VDD	
Frequency pulling range	VDD = +3.3V Vcon = +1.65V ±1.65V ±100 ppm min.
Frequency change vs. input voltage	±2 ppm max. (VDD ±10%)
Operating Conditions	Operating temperature
	Supply voltage (VDD)
	Control voltage (Vcon = Pin#1)
	Stand-by control voltage (Pin#2)
Absolute Max. Ratings	Supply voltage
	Vcontrol voltage
	Storage temperature
Input current (no load)	25 mA max.
Stand-by current (Pin#2 = "L")	10 µA max.
Output (-40°C to +85°C)	Symmetry
	Rise and fall times (10% VDD to 90% VDD level)
	"0" Level
	"1" Level
Load	15 pF max. (CMOS)
Start-up time	10 ms max.
Frequency linearity	10 % max.
Frequency slope	Positive
Modulation bandwidth (-3 dB)	10 kHz, Typical : 1.250 MHz to 30.000 MHz 20 kHz, Typical (15 kHz min.) : 30.000 MHz to 170.000 MHz
SSB phase noise (at VDD = +3.3V & 155.520 MHz)	-162 dBc / Hz, Typical at 10 MHz offset
Disable delay time	200 ns max.
Enable delay time	2 ms max.
Vcon input impedance (Vcon-GND)	5 MΩ min. (1.250 MHz to 30.000 MHz) 10 MΩ min. (30.000 MHz to 170.000 MHz)
Aging	±5 ppm max. at +25°C ±3°C for first year
Reflow condition	+250°C ±10°C for 10 seconds +170°C ±10°C for 1 to 2 minutes (preheating)

(*1) Final part number to be assigned with package type, input voltage, frequency stability, operating temperature and frequency. e.g. 97SMOVH(3.3VBW) 27.000 MHz
(*2) Internal crystal oscillation to be halted (Pin#2 = VIL).

PACKAGE DATA

Item	Package	97SMOVH
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS



XTAL

CLK OSC

VCXO

TCXO

OCXO

MCF