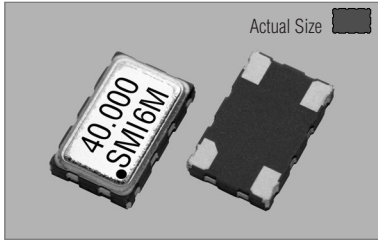
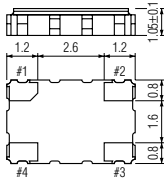
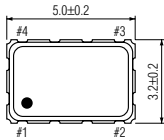


### 99SMOHG



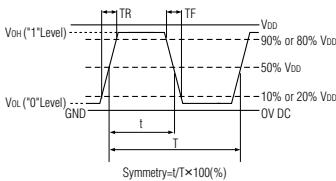
### 99SMOHG



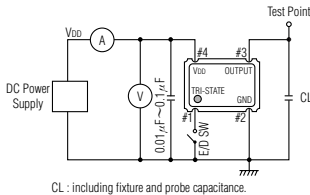
PIN	CONNECTION
1	"L" OPEN or "H"
2	GND
3	Z OUTPUT
4	V <sub>DD</sub>

Z : high impedance

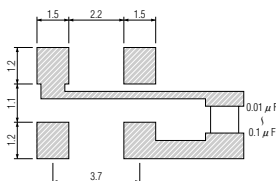
### OUTPUT WAVEFORM



### TEST CIRCUIT



### SOLDERING PATTERN



## STANDARD SPECIFICATIONS

High Stability

Item	Specifications
Generic part number	99SMOHG <sup>※1</sup>
Frequency range	500.000 kHz to 50.000 MHz
Standard frequencies (MHz)	31.250 MHz, 40.000 MHz, 44.000 MHz
Frequency stability	99SMOHG(E) : ±20 ppm over -30°C to +85°C 99SMOHG(F) : ±15 ppm over -30°C to +85°C 99SMOHG(G) : ±10 ppm over -30°C to +85°C 99SMOHG(EW) : ±20 ppm over -40°C to +85°C 99SMOHG(FW) : ±15 ppm over -40°C to +85°C 99SMOHG(GW) : ±10 ppm over -40°C to +85°C
over all conditions	
Operating Conditions	
Operating temperature	-30°C to +85°C (standard) -40°C to +85°C (W)
Input voltage (VDD)	+2.5V, +3.0V or +3.3V DC ±5%
Stand-by control voltage (Pin#1)	V <sub>IH</sub> : VDD - 0.5V min. V <sub>IL</sub> : 0.5V max. <sup>※2</sup>
Absolute Max. Ratings	
Supply voltage	-0.3V to +5.5V DC
Storage temperature	-40°C to +85°C
Input current (Pin#1=Open or V <sub>IH</sub> )	10 mA max.
Stand-by current	10 μA max. (Pin#1=V <sub>IL</sub> )
Output	
Symmetry	45% to 55% at 50%VDD level
Rise and fall times	6 ns max. (10%VDD to 90%VDD level)
"0" level	V <sub>OL</sub> : 10%VDD max.
"1" level	V <sub>OH</sub> : 90%VDD min.
Load	15 pF max. (CMOS)
Disable delay time	100 ns max.
Enable delay time	10 ms max.
Startup time	10 ms max.
Aging (non operation)	±2 ppm max. at +25°C ±3°C for first year
SSB phase noise	-130 dBc/Hz max. at 1 kHz offset
Reflow condition	+250°C ±10°C for 10 seconds +170°C ±10°C for 1 to 2 minutes (pre-heating)

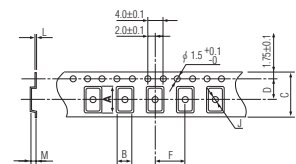
(※1) Final exact part number to be determined with frequency, frequency stability, operating temperature and input voltage.  
e.g. 99SMOHG(3.0VE) 40.000 MHz.

(※2) Internal crystal oscillation to be halted (Pin#1=V<sub>IL</sub>)

## PACKAGE DATA

Item	Package	99SMOHG
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
5.4	3.5	12.0	5.5	8.0	1.5	0.3	1.4	178	1000pcs