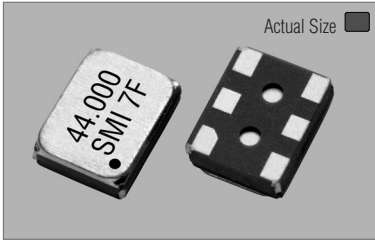


Crystal Clock Oscillators

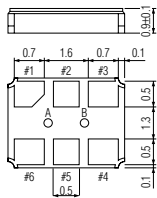
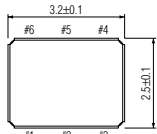
32SMOHG (+2.8V, +3.0V or +3.3V HIGH STABILITY FIXED MODELS)

STANDARD SMD CLOCK OSCILLATORS

32SMOHG



32SMOHG

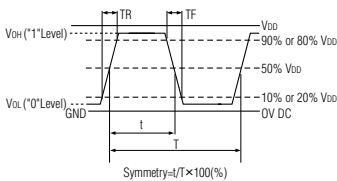


PIN	CONNECTION
1	"L" OPEN or "H"
2	N.C.
3	GND
4	Z OUTPUT
5	N.C.
6	V _{DD}

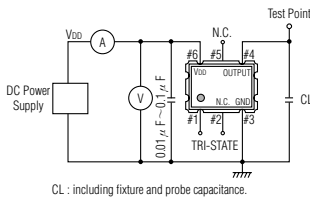
Z : high impedance

* The terminals (A & B) not to be connected.

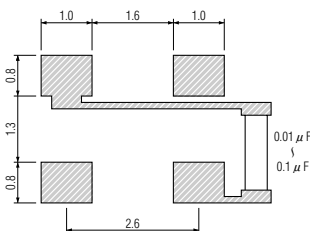
OUTPUT WAVEFORM



TEST CIRCUIT



SOLDERING PATTERN



STANDARD SPECIFICATIONS

High Stability

Item	Specifications
Generic part number	32SMOHG ^{※1}
Frequency range	500.000 kHz to 45.000 MHz
Standard frequencies (MHz)	31.250 MHz, 40.000 MHz, 44.000 MHz
Frequency stability	32SMOHG(E) : ±20 ppm over -30°C to +85°C 32SMOHG(F) : ±15 ppm over -30°C to +85°C 32SMOHG(G) : ±10 ppm over -30°C to +85°C 32SMOHG(EW) : ±20 ppm over -40°C to +85°C 32SMOHG(FW) : ±15 ppm over -40°C to +85°C 32SMOHG(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 (V _{DD})	+2.8V, +3.0V or +3.3V DC ±5%
Stand-by control voltage (Pin#1)	V _{IH} : V _{DD} - 0.5V min. V _{IL} : 0.5V max. ^{※2}
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 _{IH})	10 mA max.
Stand-by current	10 μA max. (Pin#1=V _{IL})
Output	
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	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)

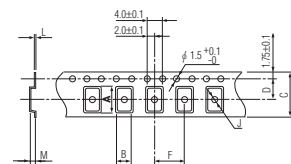
(※1) Final exact part number to be determined with frequency, frequency stability, operating temperature and input voltage.
e.g. 32SMOHG(3.0VFW) 44.000 MHz.

(※2) Internal crystal oscillation to be halted (Pin#1=V_{IL})

PACKAGE DATA

Item	Package	32SMOHG
Lid		Metal
Base		Ceramic
Sealing		AuSn
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
3.5	2.8	8.0	3.5	4.0	1.0	0.3	1.4	178	1000pcs