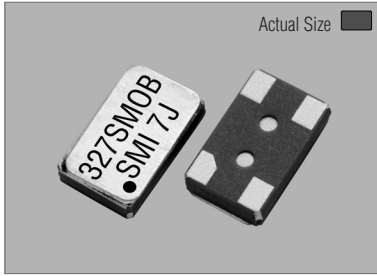
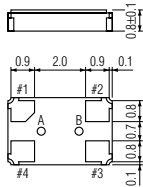
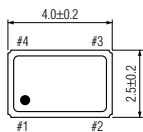


327SMO(B)



327SMO(B)



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

PIN	CONNECTION
1	"L" "H"
2	GND
3	Z OUTPUT
4	V _{DD}

Z : high impedance

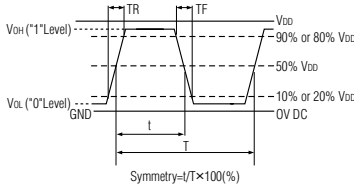
STANDARD SPECIFICATIONS

32.768 kHz OSCILLATOR

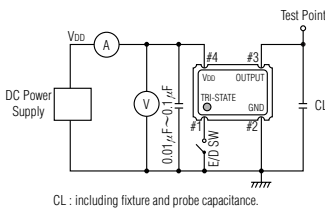
Item	Specifications
Part number	327SMO(B)
Output frequency	32.768 kHz
Frequency tolerance	+30 ppm to -10 ppm at V _{DD} = +3.3V at +25°C
Temperature stability (-20°C to +70°C)	+30 ppm to -100 ppm (V _{DD} = +1.3V to +5.5V)
Operating Conditions	
Operating temperature	-40°C to +85°C
Input voltage (V _{DD})	+3.3V DC ±10% (standard) +1.3V to +5.5V (option)
Stand-by control voltage (Pin#1)	V _{IH} : 90%V _{DD} min. V _{IL} : 10%V _{DD} max.
Absolute Max. Ratings	
Supply voltage	-0.3V to +7.0V DC
Storage temperature	-55°C to +125°C
Input current (-40°C to +85°C)	1 μA, Typical (1.5 μA max.) at V _{DD} = +3.3V, no load
Stand-by current (+25°C)*	200 nA max. (no load)
Output (-40°C to +85°C)	
Symmetry	40% to 60% at 50%V _{DD} level (CL = 15pF at +25°C)
Rise and fall times (10%V _{DD} to 90%V _{DD} level)	200 ns max. (CL = 15pF at +25°C)
"0" level	V _{OL} : +0.4V max. (CL = 15pF at +25°C)
"1" level	V _{OH} : V _{DD} - 0.4V min. (CL = 15pF at +25°C)
Load	15 pF max. (CMOS)
Disable delay time	100 ns max.
Enable delay time	3 sec. max. (V _{DD} = +3.3V at +25°C)
Startup time	3 sec. max. (V _{DD} = +3.3V at +25°C)
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)

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

OUTPUT WAVEFORM



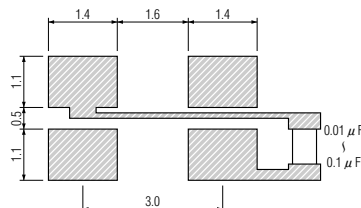
TEST CIRCUIT



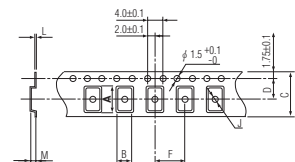
PACKAGE DATA

Item	Package	327SMO(B)
Lid		Metal
Base		Ceramic
Sealing		AuSn
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

SOLDERING PATTERN



TAPE SPECIFICATIONS



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
4.4	2.9	12.0	5.5	4.0	1.5	0.3	1.2	180	1000pcs