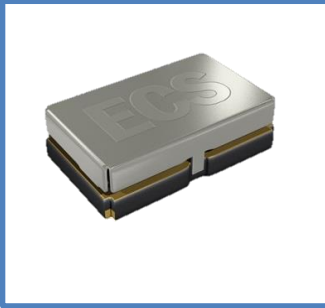


The ECS-327SMO oscillators utilizes the 32.768 KHz tuning fork crystal in a SMD ceramic package. It is designed specifically for wireless PCMCIA and portable communication equipment applications.

[Request a Sample](#)

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

#### ECS-327SMO



- 2.0 mm Low Profile
- SMD Version
- Multi Volt (1.5 to 6V)
- RoHS Compliant

Parameters	Conditions	MIN	TYP	MAX	Units
<b>Output Frequency</b>			32.768		KHz
<b>Frequency Stability</b>	-10 ~ +60°C	-60		+30	PPM
	-40 ~ +85°C	-140		+30	PPM
<b>Operating Temperature</b>		-40		+85	°C
<b>Storage Temperature</b>		-50		+125	°C
<b>Input Voltage Vcc</b>		+1.5	+3.3	+6.0	V DC
<b>Input Current</b>	With 15 pF load		8	15	μA
<b>Symmetry</b>	@ ½ Vcc level and +25°C	45/55		55/45	%
<b>Rise and Fall Time</b>				200	ns
<b>“0” Level</b>				Vcc x 0.1	
<b>“1” Level</b>		Vcc x 0.9			
<b>Load</b>	CMOS			15	pF
<b>Disable Delay Time</b>				150	nS
<b>Startup Time</b>	VDD +3.3V at +25°C		220	500	mS

\* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock and vibration.

### Part Number: ECS-327SMO-TR

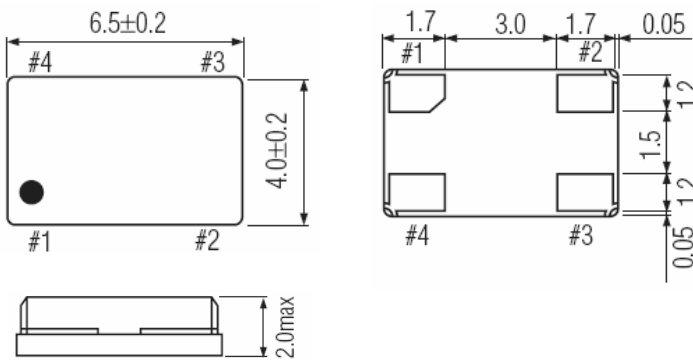
ECS - Series - Packaging

ECS

327SMO

TR = Tape & Reel  
2K/Reel

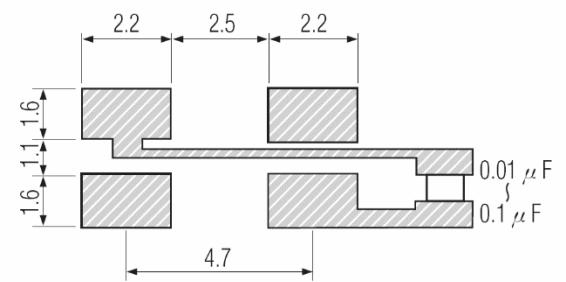
**Package Dimensions (mm)**



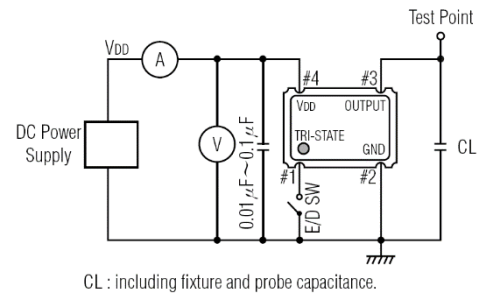
**Figure 1) Top, Side, and Bottom views**

Pad Connections		
#1	"L"	Open or "H"
#2	Ground	
#3	Z	Output
#4	V <sub>CC</sub>	

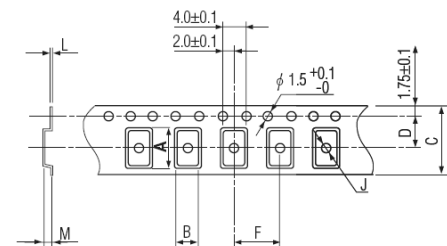
Package Data	
Cover	Metal
Base	Ceramic
Terminal Plating	Gold



**Figure 2) Land Pattern**



**Figure 3) Test Circuit**



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
7.6	4.6	12.0	5.5	8.0	1.6	0.4	3.1	330	2000 pcs

**Figure 4) Tape Specifications**