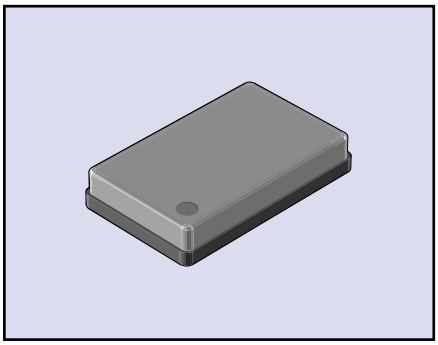
ECS-327SMO 32.768 KHz SMD CLOCK OSCILLATOR



The ECS-327SMO oscillator 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.

FEATURES

- **2.0 mm low profile**
- **SMD version**
- **3.3 V input voltage**
- **Tape & Reel (1000 pcs)**

PART NUMBERING GUIDE

PART NUMBER*
ECS-327SMO

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
OUTPUT FREQUENCY			32.768		KHz
FREQUENCY STABILITY	-10 ~ +60˚C	-60		+30	PPM
FREQUENCY STABILITY	-40 ~ +85˚C	-140		+30	PPM
OPERATING TEMPERATURE		-40		+85	˚C
STORAGE TEMPERATURE		-40		+85	˚C
INPUT VOLTAGE V_{CC}		+1.8V	+3.3V	+5.0V	V DC
INPUT CURRENT	with 15 pF load		8	15	µA
SYMMETRY	at 1/2 V_{CC} level and +25˚C	45/55		55/45	%
RISE AND FALL TIMES				200	ns
"0" LEVEL				V_{CC} x 0.1V	
"1" LEVEL		V_{CC} x 0.9V			
LOAD	CMOS			15	pF

PACKAGE DIMENSIONS (mm)

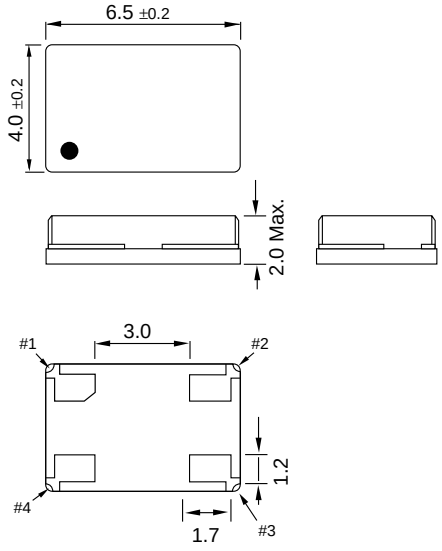


Figure 1) ECS-327SMO – Top, Bottom and Side views

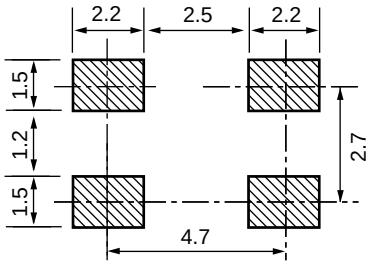
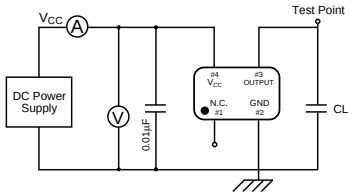


Figure 2) Land Pattern

PIN CONNECTIONS	
#1	NC
#2	GND
#3	OUTPUT
#4	V_{CC}

PACKAGE DATA	
COVER	METAL
BASE	CERAMIC
TERMINAL PLATING	GOLD



CL: Including fixture and probe capacitance.

Figure 3) Test Circuit

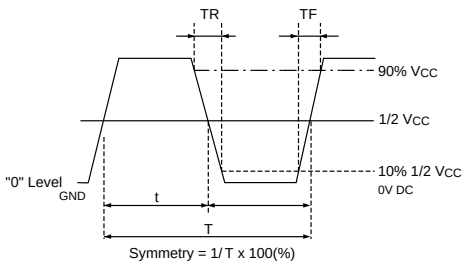


Figure 4) Output Wave Form