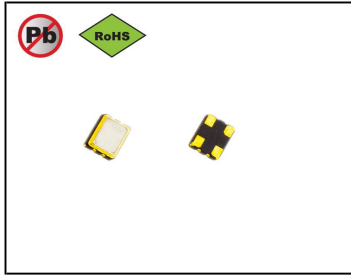


# KOS1Q

# AUTOMOTIVE OSCILLATOR



## ■ HCMOS SMD OSC 2.0×1.6mm

- Miniature Ceramic Surface Mount package
- Excellent environmental characteristics for Automotive
- High reliability and Wide temperature range available
- AEC-Q100 compliant
- Applications : Automotive electronics, Infotainment system, ADAS, Car navigation etc.

## ■ Standard Specification

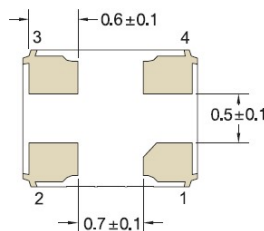
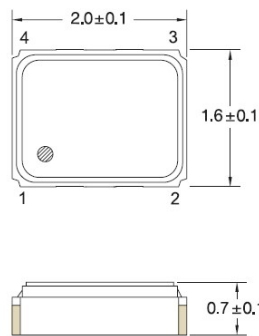
Frequency range	32.768kHz, 0.250MHz to 125.000MHz	
Supply voltage	1.8V, 2.5V, 3.3V (0.8 to 1.5V Option)	
Frequency Stability	±25ppm, ±30ppm, ±50ppm	±50ppm, ±100ppm
Operating Temperature Range	-40 to 85°C	-40 to 125°C
Storage Temperature Range	-55 to 125°C	
Output load condition	CMOS 15pF	
Symmetry (Duty)	50% ±10% or please specify	
Output rise and fall time ( Tr /Tf )	10ns Max (except 32.768kHz) or please specify	
Output high level	90% Vdd Min	
Output low level	10% Vdd Max	
Pin 1	Enable input voltage	70% Vdd Min or N.C
Function	Disable input voltage	30% Vdd Max
Oscillation start up time	5ms Max	
Aging (Initial first year)	± 3ppm Max	
Phase jitter (12KHz ~ 20MHz)	1.0ps RMS Max or please specify	
Period jitter (pk-pk)	25ps Max	

## ■ Current consumption (mA Max)

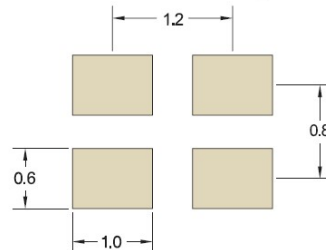
Vdd vs Frequency	≤ 25M	≤ 40M	≤ 60M	≤ 125M
1.8V	4	6	10	25
2.5V	6	8	12	30
3.3V	10	15	20	40
5.0V	15	20	30	50

\*Please contact us for lower Current

## ■ Dimensions (mm)



## • Recommended Soldering Pattern



CONNECTION  
 1: N.C or EN/DIS(Tri-State)  
 2: GND  
 3: OUTPUT  
 4: Vdd