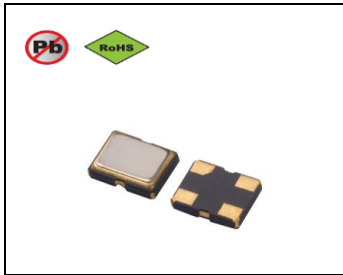


KOS3Q**AUTOMOTIVE OSCILLATOR****■ HCMOS SMD OSC 3.2×2.5mm**

- 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.

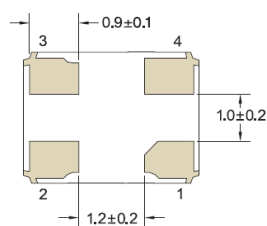
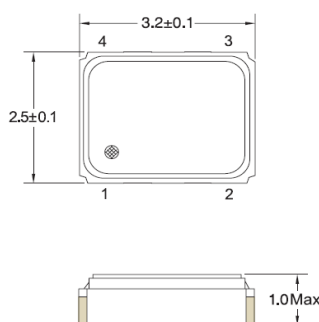
■ Standard Specification

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	

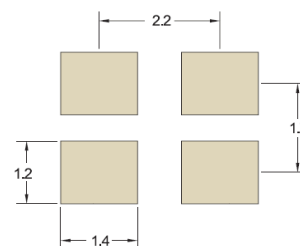
■ Current consumption (mA Max)

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

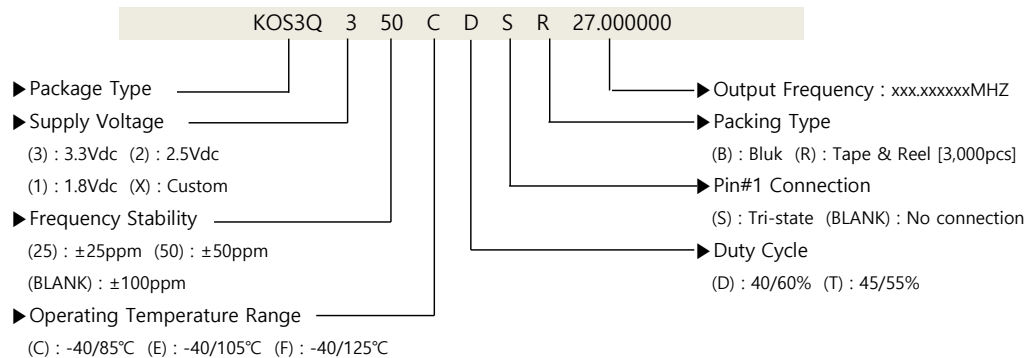
*Please contact us for lower Current

■ Dimensions (mm)

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

• Recommended Soldering Pattern

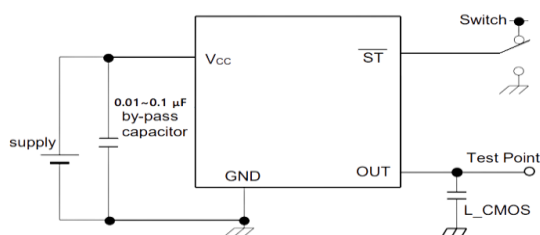
Part Numbering Guide



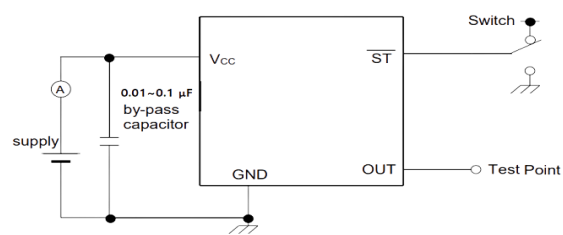
*Please contact us for other specifications.

Test Circuit Information

Waveform Observation

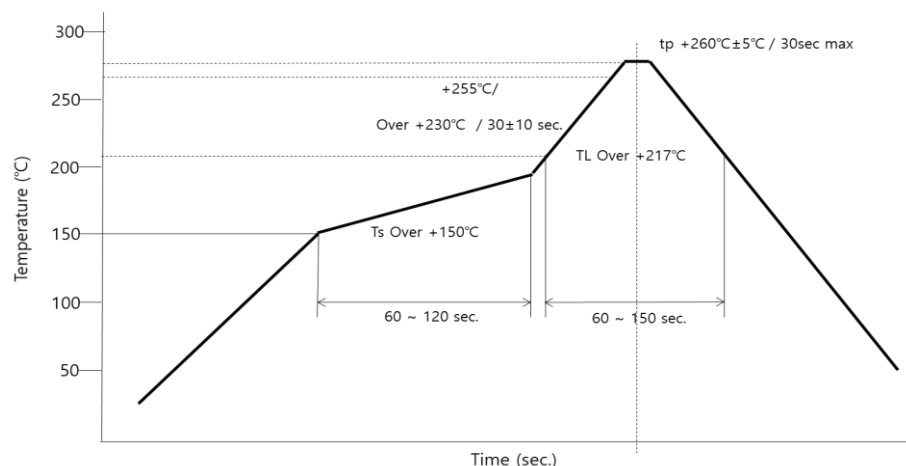


Current Consumption Test



*Standby current test should be $\overline{ST} = \text{GND}$.

Recommendation reflow condition



- (1) Reflow soldering heat resistance
 Peak Temp. : 265°C, 30sec max.
 Heating : 230°C or higher, 40sec.
 Preheating : 150~180°C, 120sec.
 Reflow passage times : 2 times

- (2) Manual soldering heat resistance
 Pressing a soldering iron of 350°C on the terminal electrode
 Soldering touch time : 4sec.
 Manual soldering times : 2 times