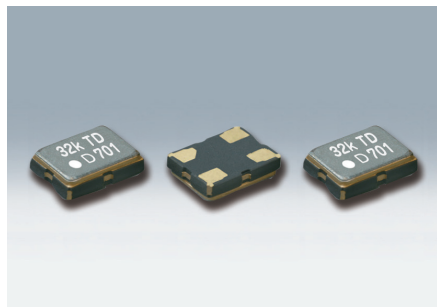


# SMD TCXO (For Automotive)

## DSK321STD



Actual size

### ■ Features

- Digital temperature compensated type
- High precision:  $\pm 5.0 \times 10^{-6}$  ( $-40$  to  $+85^\circ\text{C}$ )
- Low current consumption
- AEC-Q200 Compliant
- CMOS Level Output

### ■ Applications

- High precision clock source
- High precision clock source for RTC



### ■ Standard Specification

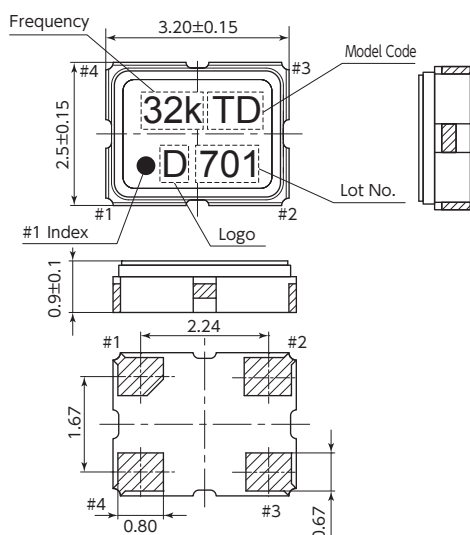
Item	Legend	Spec.				Condition
		min.	typ.	max.	Unit	
Output Frequency	$f_0$	—	32.768	—	kHz	
Supply Voltage Range	$V_{CC}$	+1.5	—	+3.63	V	(Temperature Compensated Operating)
Frequency Tolerance (Includes frequency tolerance at room temperature.)	$f_{tol}$	-5.0	—	+5.0	$\times 10^{-6}$	$-40$ to $+85^\circ\text{C}$
Current Consumption	$I_{CC}$	—	—	+3.5	$\mu\text{A}$	$V_{CC}=+1.8\text{V}$ or $+3.3\text{V}$ , Temperature Compensation Interval:0.5s, No Load
		—	—	+3.2		
Symmetry	SYM	40	50	60	%	at 50% $V_{CC}$
0 Level Output Voltage	$V_{OL}$	—	—	$V_{CC} \times 0.1$	V	
1 Level Output Voltage	$V_{OH}$	$V_{CC} \times 0.9$	—	—		
Rise and Fall Time	$t_r, t_f$	—	—	50	ns	$V_{CC}=+1.5$ to $+3.63\text{V}$ , 10 to 90% $V_{CC}$ Level
Load Condition	$L_{CMOS}$	—	—	15	pF	
Start Up Time	$T_{start}$	—	—	1.0	s	
Reliability	AEC-Q200					
Packing Unit (1)	2000pcs./reel ( $\phi 180$ )					

(1) Moisture prevention packing is unnecessary.  
Moisture Sensitivity Level:Level 1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

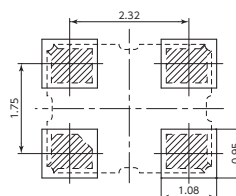
[mm]

### ■ Dimensions



### ■ Recommended Land Pattern

<Top View>



Pin No.	Connection
#1	$V_{CC}$
#2	GND
#3	Output
#4	$V_{CC}$