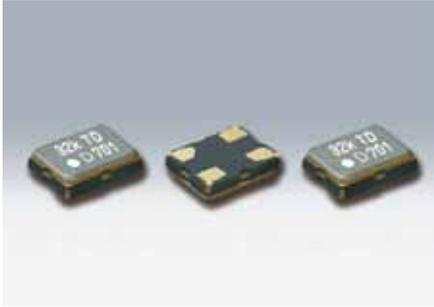


# SMD TCXO

## DSK321STD



Actual size

### ■ Features

- Digital temperature compensated type
- High precision :  $\pm 5.0 \times 10^{-6}$  (−40 to +85°C)  
 $\pm 3.8 \times 10^{-6}$  (−10 to +60°C)
- Low current consumption
- AEC-Q100/AEC-Q200 compliant

### ■ Applications

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



### ■ Standard Specification

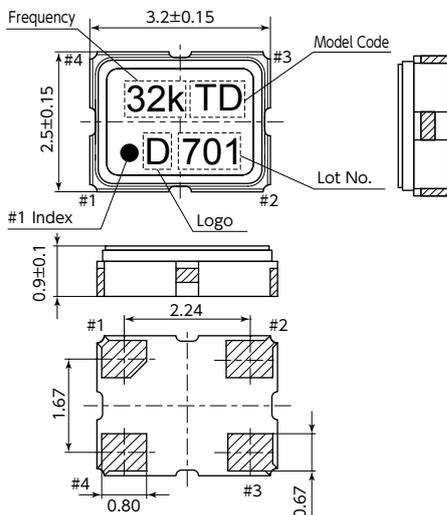
Item	Legend	Spec.				Unit	Condition
		min.	typ.	max.			
Output Frequency	f <sub>o</sub>	—	32.768	—		kHz	
Supply Voltage Range	V <sub>cc</sub>	+2.0	—	+5.5	V		(Temperature Compensated Operating)
		+1.3	—	+5.5			(Clock Timing Operating)
Frequency Tolerance	f <sub>tol</sub>	−5.0	—	+5.0	$\times 10^{-6}$		−40 to +85°C
		−3.8	—	+3.8			−10 to +60°C
Current Consumption	I <sub>cc</sub>	—	+1.2	+2.5	$\mu$ A		V <sub>cc</sub> =+3.3V, Temperature Compensation Interval:0.5s, No Load
		—	+1.7	+3.2			V <sub>cc</sub> =+5.0V, Temperature Compensation Interval:0.5s, No Load
		—	+1.0	+2.0			V <sub>cc</sub> =+3.3V, Temperature Compensation Interval:2.0s, No Load
		—	+1.5	+3.0			V <sub>cc</sub> =+5.0V, Temperature Compensation Interval:2.0s, No Load
Symmetry	SYM	40	50	60	%		at 50% V <sub>cc</sub>
0 Level Output Voltage	V <sub>OL</sub>	—	—	+0.4	V		
1 Level Output Voltage	V <sub>OH</sub>	V <sub>cc</sub> -0.4	—	—			
Rise and Fall Time	tr, tf	—	—	50	ns		V <sub>cc</sub> =+2.0 to +5.5V, 10 to 90% V <sub>cc</sub> Level
		—	—	200			V <sub>cc</sub> =+1.3 to +5.5V, 10 to 90% V <sub>cc</sub> Level
Load Condition	L <sub>CMOS</sub>	—	—	15	pF		
Start Up Time	T <sub>start</sub>	—	—	3.0	s		
Packing Unit (1)		2000pcs./reel (φ 180)					

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

Consult our sales representative for other specifications.

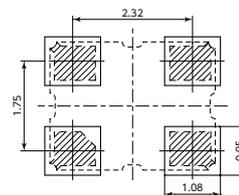
[mm]

### ■ Dimensions



### ■ Recommended Land Pattern

<Top View>



Pin No.	Connection
#1	V <sub>cc</sub>
#2	GND
#3	Output
#4	V <sub>cc</sub>