SPECIFICATION SHEET NO.	S0425 – RM32K76800S303
ORIGINAL MFG/PART NO.	TGS Crystals/COK5331DGI01 TLF-32K768
NEXTGEN PART CODE	RM32K76800S303 — Indicate This Code For [RFQ](#) /Order
DATE	Apr. 25, 2025
REVISION	A2 — Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	KHz SMD Crystal Oscillator, Case 5032 Type, 4 Pads, RM series, Case Dimension L5.0*W3.2*H1.2mm 32.768KHz, Supply Voltage 3.3V, Tolerance ±30ppm @25℃±3℃ Symmetry 45/55; Output Waveform HCMOS, Output Load 15pF Tri-State (Output Enable) Via Pin 1, Operating Temp. Range -40°C ~+85°C Package in Tape/Reel, 1000pcs/Reel REACH/RoHS/RoHS III Compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
MEMO	

VENDOR APPROVE

Issued/Checked/Approved

Mandy Xu   Ruby Zhang   Jack Zhang

Effective Date: Apr. 25, 2025

CUSTOMER APPROVE

Date:

MAIN FEATURE

- SMD Package, Seam Sealed, 5032 Type, 4 Pads

- Case Dimension L5.0*W3.2*H1.2mm

- Low Noise And Low Current

- Industry Standard

- Reflow Profile Condition 260 ℃ Max.

- Tristate Function – Enable/Disable or Tri-State (Output Enable) Via Pin 1

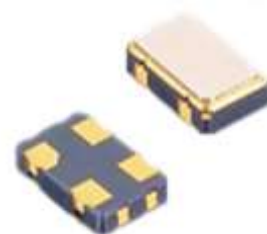- Cross More Competitor's Part

- REACH/RoHS/RoHS III Compliant

Image shown is a representation only. Exact specifications should be obtained from the product dimension.

APPLICATION

- PDA, PND, DSC, Smart phone, WiLAN, Bluetooth and more

- Communication Electronics

ELECTRICAL CHARACTERISTICS

- See Page 6 ~ Page 7 For Different Part Code.

- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code RM32K76800S303 For RFQ and Order.

PART CODE GUIDE

RFQ
Request For Quotation

CODE	NAME	KEY SPECIFICATION OPTION
RM	Series Code	KHz SMD Crystal Oscillator 5032 Type, 4Pads, Case Dimension L5.0*W3.2*H1.2mm
32K768	Frequency Range Code	32K768: 32.768KHz or Specify Frequency Range
00S	Internal Control Code	Letter A~Z, a~z or Digits (0~9)
303	Parameters Code	Special Parameters Code Letter A~Z, a~z or Digits (0-9)
XX	Special/Custom Parameters Code	Blank: N/A XX: Letter A~Z, a~z or Digits (0~9) for Special/Custom Parameters

DIMENSION - Unit: mm, Case Dimension L5.0*W3.2*H1.2mm

Top View

5.0 ±0.2

#4

#3

3.2 ±0.2

#1

#2

Side View

1.2 ±0.1

Bottom View

2.54

#3

#4

1.0

2.2

#2

1.2

#1
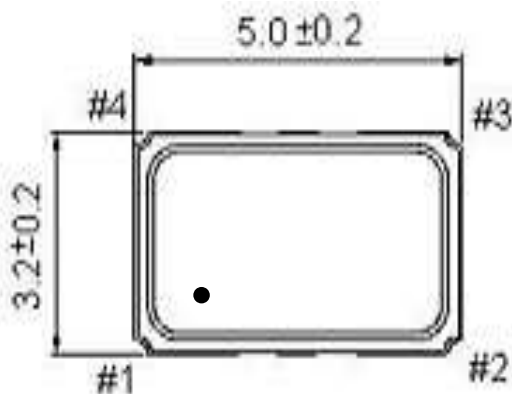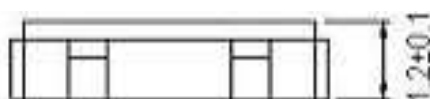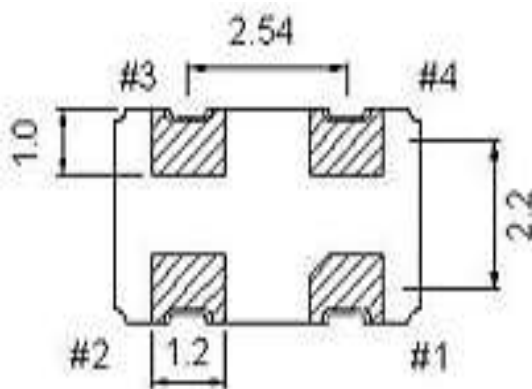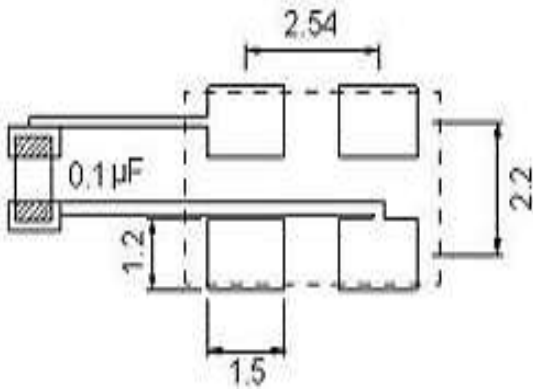
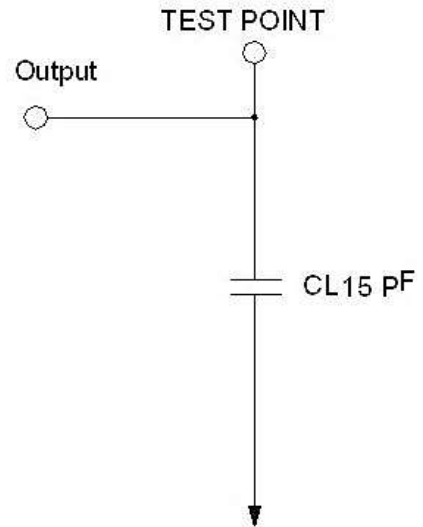Pin Function

1 Tristate Enable Via #1

#2 Ground

#3 Output

#4 VDD

SUGGESTED LAYOUT– Unit: mm, For Reference Only

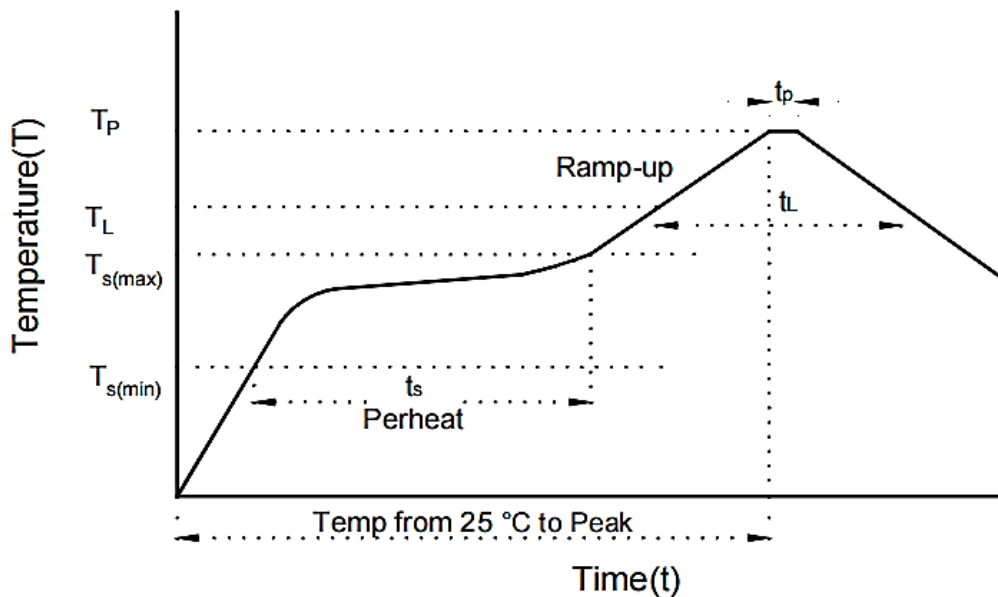**CIRCUIT PRINCIPLE** – For Reference Only

OUTPUT WAVEFORM - HCMOS LOAD

$$Duty = \frac{TH}{T} \%$$

NextGen Components,Inc.
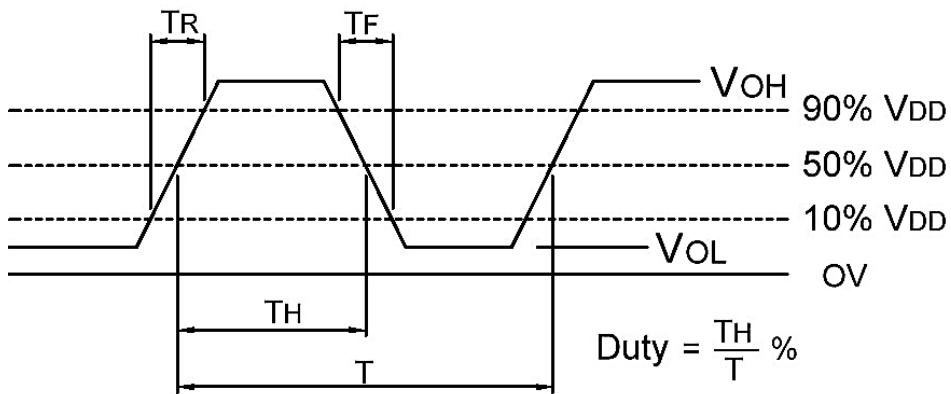
GENERAL ELECTRICAL PARAMETERS

PARAMETER		SYMBOL	VALUE			UNIT	CONDITION
			MIN.	TYPE	MAX.		
Frequency Range		F0	-	32.768	-	KHz	Please specify
Frequency Tolerance		△F/F0	±20	-	±50	ppm	at 25℃±3℃
Tristate Function		INHN	Enable/Disable or Tri-State (Output Enable) Via Pin 1				Please specify
Operating Temp. Range		TOPR	-40	-	+85	˚C	
Storage Temp. Range		TSTG	-55	-	+125	˚C	
Power Supply	Voltage	VDD	1.62		5.0	V	Please specify
	Current	IDD	-	-	10	mA	@ Max. Supply Voltage
Output Level		VOH	90% Vdd	-	-	V	Output High(Logic "1")
		VOL	-	-	10% Vdd	V	Output Low(Logic "0")
		Load	15, 30, 50			pF	Please specify
Output Waveform			TTL, HCMOS				Please specify
Duty Cycle		Duty	45	-	55	%	
Start-up Time		Tosc	-	-	5	mSec.	
Rise/ Fall time		Tr/Tf	-	-	5	nSec.	
Aging		FA	-3	-	+3	ppm	Frequency drift in 1st year

ELECTRICAL PARAMETERS – FOR DIFFERENT PART CODE- Ta = 25℃

PART CODE	FREQUENCY RANGE	SUPPLY VOLTAGE	FREQUENCY TOLERANCE	OUTPUT WAVEFORM	OUTLOAD	TRISTATE FUNCTION
	KHz	V	ppm @25℃		pF	
RM32K76800S300	32.768	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RM32K76800S303	32.768	3.3	±30	HCMOS	15	Tri-State (Output Enable)
RM32K76800S302	32.768	3.3	±25	HCMOS	15	Tri-State (Output Enable)

SUGGESTED REFLOW PROFILE - For Reference Only

PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification Temperature (T_p)		260 °C
Time within 5°C of actual Peak Temperature (t_p)		10 seconds Max.
Ramp-down Rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 Minutes Max.
Suggest reflow times		3 Times Max.

TAPE/REEL - Unit: mm

All Devices are packed in accordance with EIA standard RS-481-2 and specifications, 1000pcs/Reel
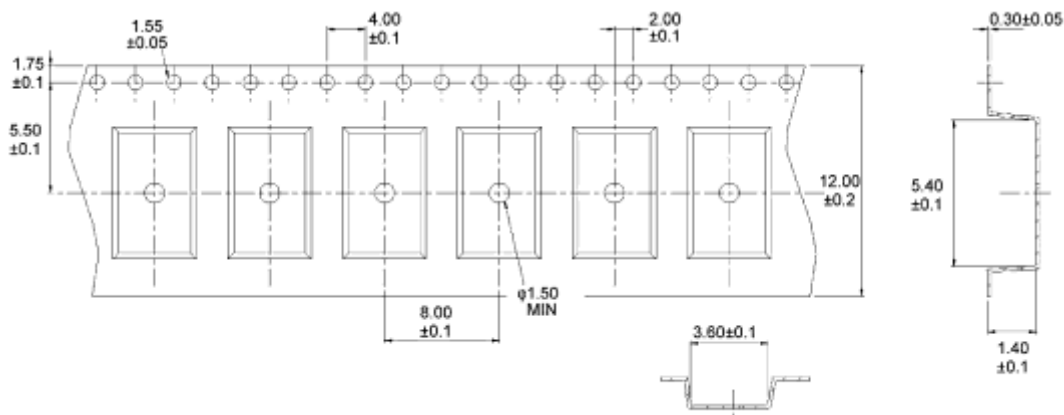
The Direction Of Packing

NextGen Components, Inc.
sales@NextGenComponent.com
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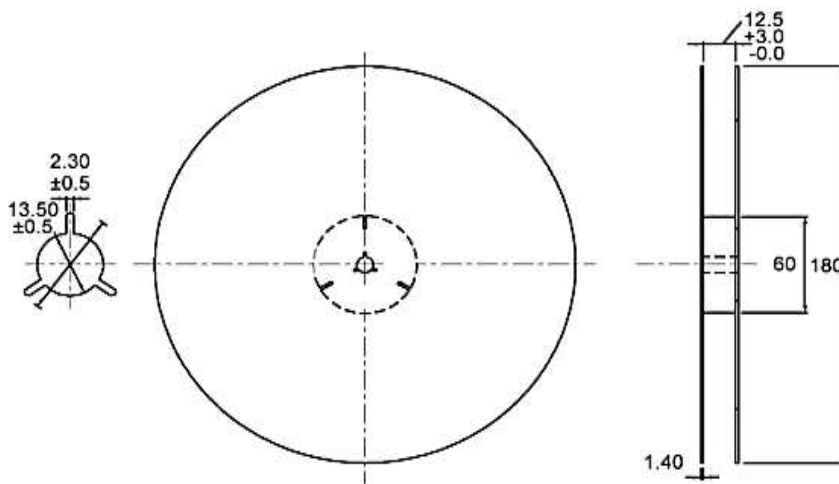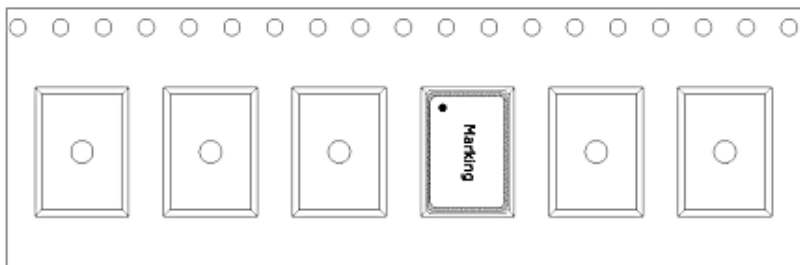
IMPORTANT NOTES AND DISCLAIMER

1. ROHS COMPLIANCE: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained can be obtained at Download Center.

2. REACH COMPLIANCE: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained can be obtained at Download Center.

3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

4. NextGen Component, Inc (*NextGen*) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

5. *NextGen* makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does *NextGen* assume any liability for application assistance or customer product design.

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