SPECIFICATION SHEET

SMD CRYSTAL OSCILLATOR CASE 5032 RD SERIES

SPECIFICATION SHEET NO.	S0423 – RD40M00000S302	
ORIGINAL MFG/PART NO.	TGS Crystals/COM5331AGI01TLF-40M000	
NEXTGEN PART CODE	RD40M00000S302	Indicate This Code For RFQ /Order
DATE	Apr. 23, 2025	
REVISION	A2	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	SMD Crystal Oscillator, Case 5032 Type, 4 Pads, RD series, Case Dimension L5.0*W3.2*H1.2mm 40.000MHz, Supply Voltage 3.3V, Tolerance ±25ppm @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 NextGen Components, Inc. Mandy Xu NextGen Components, Inc. Ruby Zhang NextGen Components, Inc. Jack Zhang
Effective Date: Apr. 23, 2025

CUSTOMER APPROVE
Date:

MAIN FEATURE

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

- 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

APPLICATION

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

ELECTRICAL CHARACTERISTICS

- See Page 6 ~ Page 8 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 RD40M00000S302 For RFQ and Order.

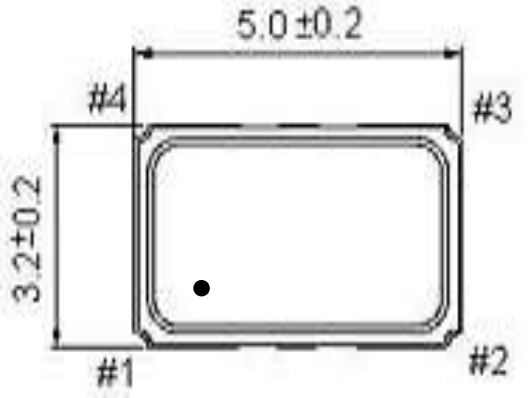
PART CODE GUIDE

RFQ
Request For Quotation

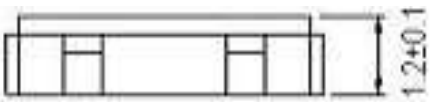
CODE	NAME	KEY SPECIFICATION OPTION
RD	Series Code	SMD Crystal Oscillator 5032 Type, 4Pads, Case Dimension L5.0*W3.2*H1.2mm
40M0	Frequency Range Code	40M0: 40.0MHz or Custom Frequency Range
0000S	Internal Control Code	Letter A~Z, a~z or Digits (0~9)
302	Parameters Code	Special Parameters Code Letter A~Z, 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

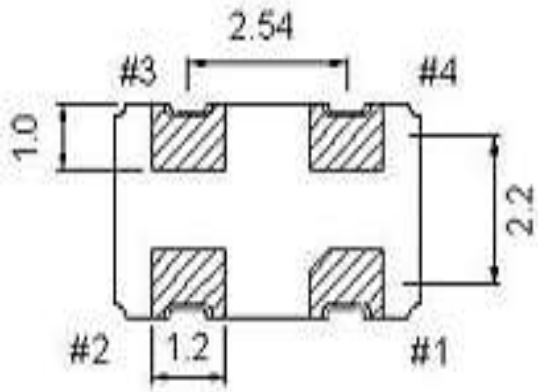
Top View



Side View



Bottom View



Pin Function

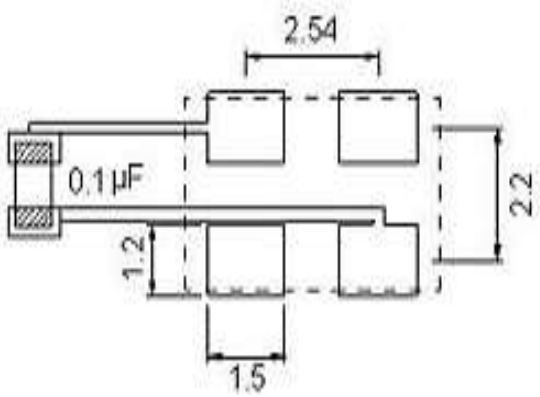
1 Tristate Enable Via #1

#2 Ground

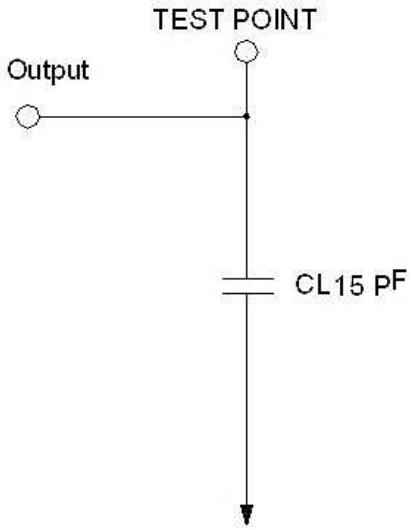
#3 Output

#4 VDD

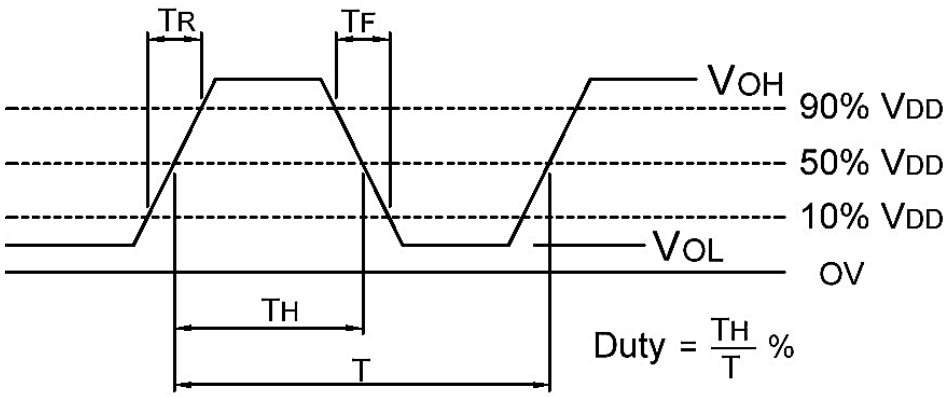
SUGGESTED LAYOUT– Unit: mm, For Reference Only



CIRCUIT PRINCIPLE – For Reference Only



OUTPUT WAVEFORM - HCMOS LOAD



GENERAL ELECTRICAL PARAMETERS

PARAMETER		SYMBOL	VALUE			UNIT	CONDITION
			MIN.	TYPE	MAX.		
Frequency Range		F0	0.032768	-	125.00	MHz	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

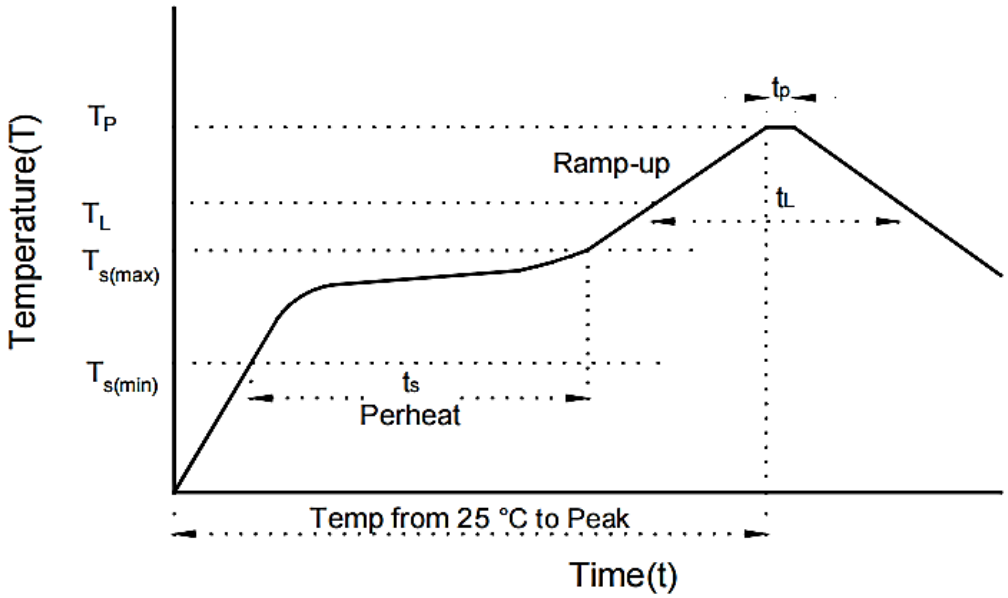
ELECTRICAL PARAMETERS – FOR DIFFERENT PART CODE- Ta = 25℃

PART CODE	FREQUENCY RANGE	SUPPLY VOLTAGE	FREQUENCY TOLERANCE	OUTPUT WAVEFORM	OUTLOAD	TRISTATE FUNCTION
	MHz	V	ppm @25℃		pF	
RD6M000000S302	6.000000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD8M000000S302	8.000000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD10M00000S302	10.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD12M00000S300	12.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD12M00000S302	12.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD12M28800S300	12.28800	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD12M28800S302	12.28800	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD16M00000S300	16.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD16M00000S302	16.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD16M62500S302	16.62500	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD20M00000S300	20.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD20M00000S302	20.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD20M48000S302	20.48000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD24M00000S300	24.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD24M00000S302	24.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD24M57600S302	24.57600	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD25M00000S300	25.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD25M00000S302	25.00000	3.3	±20	HCMOS	15	Tri-State (Output Enable)
RD25M000625S302	25.000625	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD26M00000S302	26.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)

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

PART CODE	FREQUENCY RANGE	SUPPLY VOLTAGE	FREQUENCY TOLERANCE	OUTPUT WAVEFORM	OUTLOAD	TRISTATE FUNCTION
	MHz	V	ppm @25℃		pF	
RD27M00000S300	27.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD27M00000S302	27.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD30M00000S302	30.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD32M76800S302	32.76800	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD33M33000S302	33.33000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD37M12500S302	37.12500	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD40M00000S302	40.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD48M00000S302	48.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD50M00000S300	50.00000	3.3	±50	HCMOS	15	Tri-State (Output Enable)
RD50M00000S302	50.00000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD100M0000S302	100.0000	3.3	±25	HCMOS	15	Tri-State (Output Enable)
RD125M0000S302	125.0000	3.3	±25	HCMOS	15	Tri-State (Output Enable)

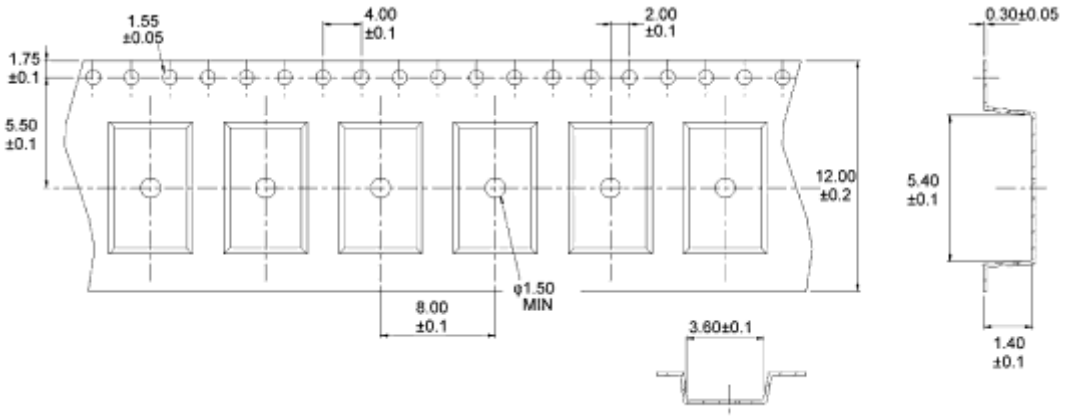
SUGGESTED REFLOW PROFILE - For Reference Only



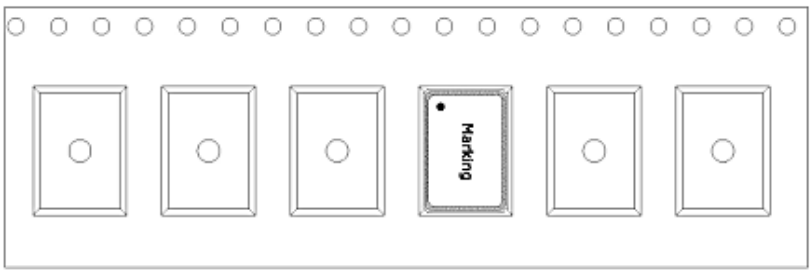
PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification 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.

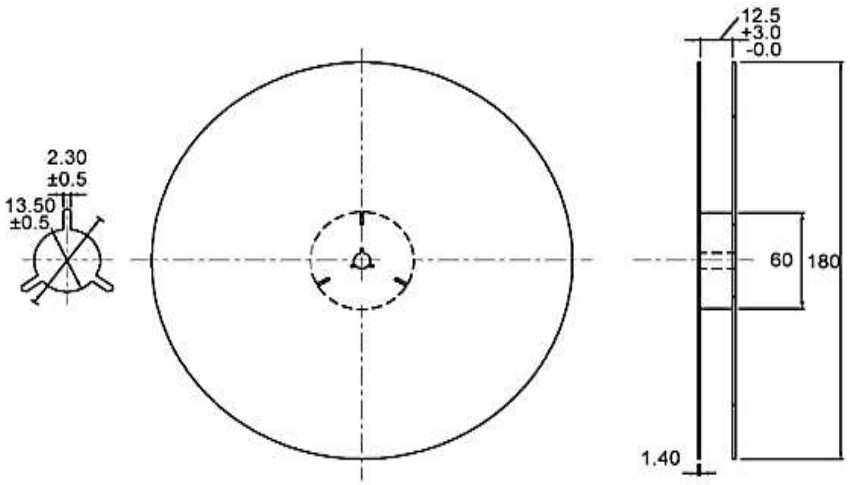
TAPE/REEL - Unit: mm

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



The Direction Of Packing





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.
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