

SPECIFICATION SHEET NO.	S0515 - XC18M43200S520	
ORIGINAL MFG/PART NO.	TGS Crystals/CM63 18M432A50-20-50-40-40TLF	
NEXTGEN PART CODE	XC18M43200S520	Indicate This Code For <a href="#">RFQ</a> /Order
DATE	May 15, 2025	
REVISION	A2	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	MHz SMD Crystal Seam Seal, Case 6035 XC series, 4 pads Dimension L6.0*W3.5*H1.2mm 18.432MHz, Tolerance $\pm 50$ ppm, Load Capacitor 20pF Frequency stability $\pm 50$ ppm, ESR 40ohm Max, Operating Temp. Range -40°C ~+85°C Reflow Profile Condition 260 °C Max. 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		
Effective Date: May 15, 2025		

CUSTOMER APPROVE
Date:

## MAIN FEATURE

- MHz SMD Crystal L6.0\*W3.5\*H1.2mm 4 Pads
- Low Cost and short Lead time
- High Precision
- High Frequency Stability
- Reflow Profile Condition 260 ° C Max.
- Cross More Competitors Part
- REACH/RoHS/RoHS III Compliant



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

## APPLICATION

- Bluetooth, Wireless Communication Set
- Communication Electronics



## ELECTRICAL CHARACTERISTICS

- See Page 5~6 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 XC18M43200S520 For RFQ and Order.

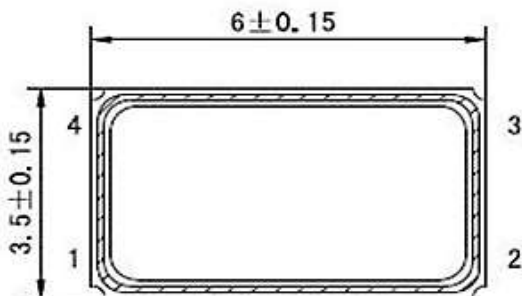
## PART CODE GUIDE

**RFQ**  
[Request For Quotation](#)

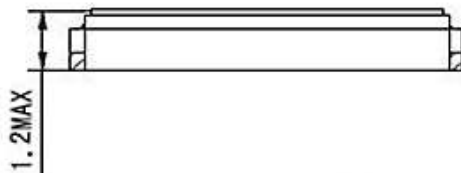
CODE	NAME	KEY SPECIFICATION OPTION
XC	Product Series Code	MHz SMD Crystal, Seam Seal, 4 Pads Case Dimension L6.0*W3.5*H1.2mm
18M432	Frequency Range Code	18M432: 18.432MHz or Specify Frequency Range
00S	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
520	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

DIMENSION - Unit: mm, Case 6035

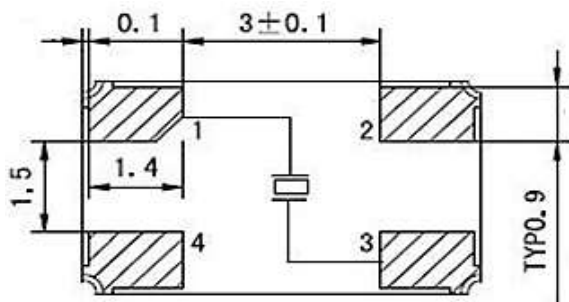
### Top View



Side View

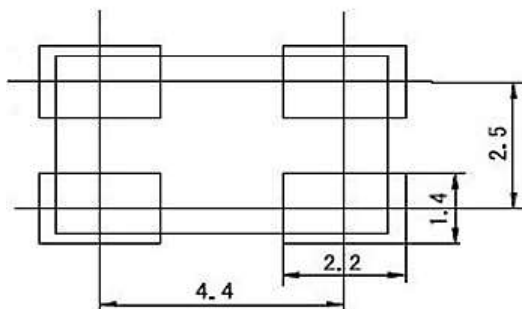


### Bottom View



#1 Crystal #2 Ground #3 Crystal #4 Ground

### Recommend Pad Layout



GENERAL SPECIFICATION –Ta = 25°C

PARAMETER	SYMBOL	VALUE			UNIT	CONDITION
		MIN.	TYPE	MAX.		
Mode of Vibration Code		Fundamental				
Frequency Tolerance	ΔF/F0	±10	-	±50	ppm	@ 25°C
Load Capacitance	CL	8	-	30	pF	
Frequency Stability	Tc	±10	-	±50	ppm	
Operating Temp. Range	TOPR	-40	-	+85	°C	
Storage Temp. Range	TSTG	-50	-	+105	°C	
Drive Level	DL	-	-	10	μW	
Insulation Resistance	IR	500	-		mΩ	@100V ± 15Vdc
Shunt Capacitance	C0	-	-	7.0	pF	
Aging per year	Fa	-3	-	+3	ppm	1st Year

**ELECTRICAL PARAMETERS – FOR DIFFERENT PART CODE- Ta = 25°C**

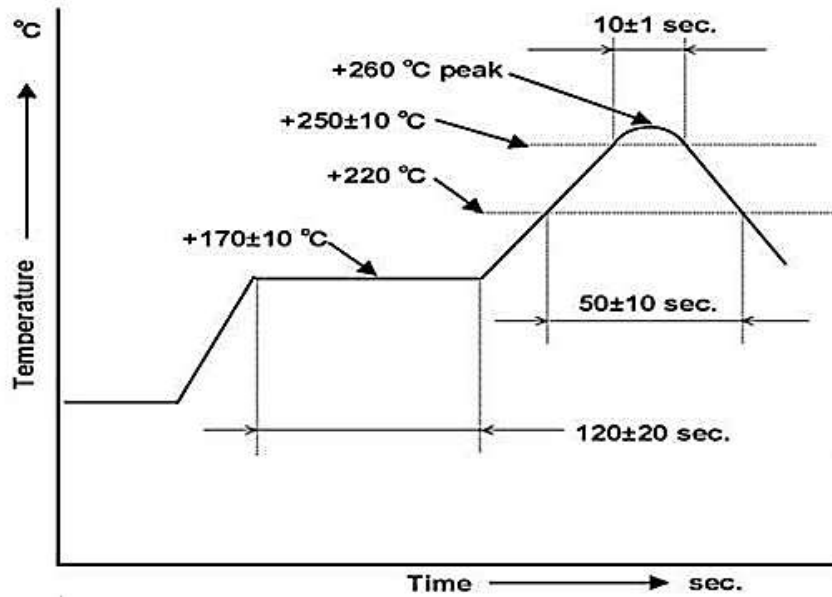
PART CODE	FREQUENCY RANGE	FREQUENCY TOLERANCE	LOAD CAPACITANCE	FREQUENCY STABILITY	OPERATING TEMPE. RANGE	EQUIVALENT SERIES RESISTANCE
	MHz	ppm	pF	ppm	°C	Ω Max.
XC18M43200S116	18.4320	±10	16	±50	-40 ~ +85	40
XC18M43200S216	18.4320	±20	16	±50	-40 ~ +85	40
XC18M43200S316	18.4320	±30	16	±50	-40 ~ +85	40
XC18M43200S416	18.4320	±40	16	±50	-40 ~ +85	40
XC18M43200S516	18.4320	±50	16	±50	-40 ~ +85	40
XC18M43200S118	18.4320	±10	18	±50	-40 ~ +85	40
XC18M43200S218	18.4320	±20	18	±50	-40 ~ +85	40
XC18M43200S318	18.4320	±30	18	±50	-40 ~ +85	40
XC18M43200S418	18.4320	±40	18	±50	-40 ~ +85	40
XC18M43200S518	18.4320	±50	18	±50	-40 ~ +85	40
XC18M43200S120	18.4320	±10	20	±50	-40 ~ +85	40
XC18M43200S220	18.4320	±20	20	±50	-40 ~ +85	40
XC18M43200S320	18.4320	±30	20	±50	-40 ~ +85	40
XC18M43200S001	18.4320	±40	20	±50	-40 ~ +85	40
<a href="#">XC18M43200S520</a>	18.4320	±50	20	±50	-40 ~ +85	40

RELIABILITY - MECHANICAL AND ENVIRONMENTAL ENDURANCE

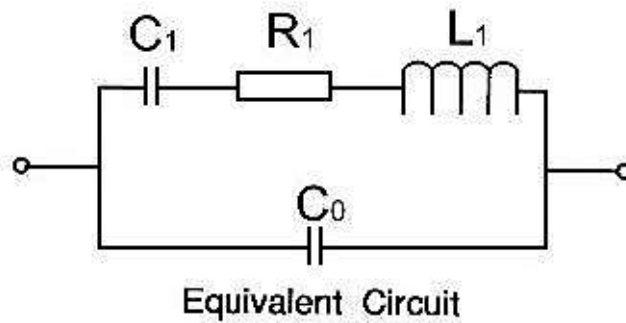
TEST ITEMS	TEST METHOD AND CONDITIONS	REQUIREMENTS
Drop	Free drop from 75cm height on a hard wooden board for 3 times. (Board is thickness more than 30mm.)	Frequency change: ≤5ppm Rr as specification
Shake	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
Airproof	Put crystal into the pressure cabin with alcohol, keep pressure 0.4~0.5mpa 10 minutes, then take out and blow for 5 minutes	IR≥500MΩ
Weld	Temperature: 260±5°C Time: 3 seconds	90% exhibit tin ok
Humidity	Temperature: +40±2°C Humidity: 90%~95% R.H. Time: 250 hours	Frequency change: ≤5ppm Rr as specification
Low temperature	Temperature: -30±2°C Time: 250 hours put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
High Temperature	Temperature: +85±2°C Time: 250 hours put in room temperature, test after 1 hours.	Frequency change: ≤5ppm Rr as specification
Temperature cycling	-30±3°C/30±3 min~+85±2°C/30±3min, 5 cycles	Frequency change: ≤5ppm Rr as specification

SUGGESTED REFLOW PROFILE - FOR REFERENCE ONLY

Condition:

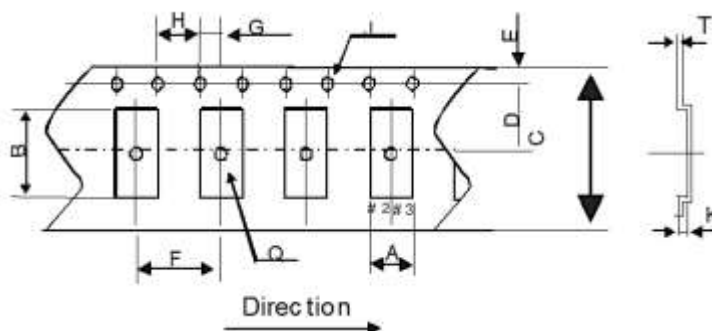


EQUIVALENT CIRCUIT

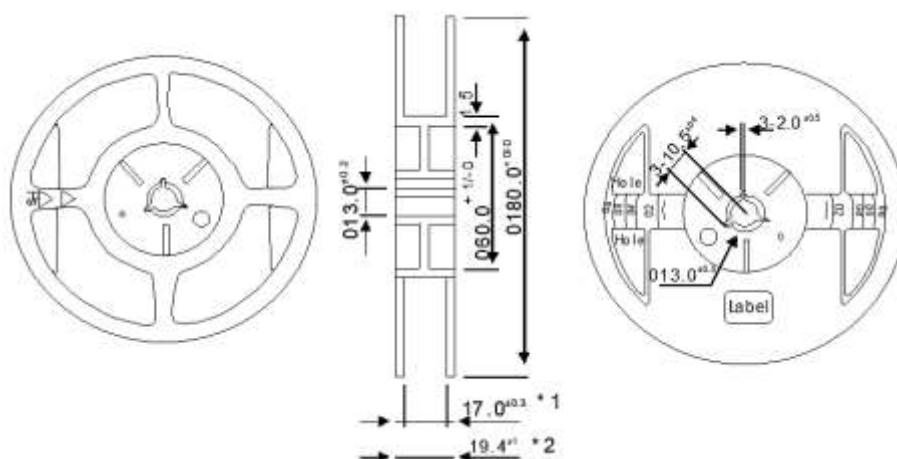




TAPE AND REEL - Unit: mm, 1000pcs/Reel



SYMBOL	TOLERANCE	DIMENSION (MM)
A	±0.1	3.9
B	±0.1	6.4
C	±0.2	16
D	±0.1	7.5
E	±0.1	1.75
F	±0.1	8.0
G	±0.1	2.0
H	±0.1	4.0
J	+0.1/0	1.55
K	±0.1	1.5
Q	0.1	1.55
T	±0.05	0.3



## 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 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 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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