




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	R0612-CA3M580000L001	
DATE	June 12, 2024	
REVISION	A4	Updated With Most Recent Data-Legacy Part- Not Recommended for New Designs
DESCRIPTION AND MAIN PARAMETRICS	<p>Thru-Hole Ceramic Resonator, L9.5*W4.0*H5.5mm, 2 Pins Lead: 5.0mm CRA Series 3.580MHz, Without Built-in Capacitance Frequency Accuracy $\pm 0.5\%$, Operating Temp. Range $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$ RoHS3 Compliant, Packed in Bulk</p>	
CUSTOMER		
CUSTOMER PART NO.		
CROSS REF. PART NO.		
ORIGINAL MFG/PART NO.	TGS ZTA3.58MG BLH/ZTAWS 3.58MG55AC0-B0	
PART CODE	CA3M580000L001	

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: June 12, 2024			

CUSTOMER APPROVE	
DATE:	

MHZ THRU-HOLE CERAMIC RESONATOR CRA SERIES

MAIN FEATURE

- MHz Thru-Hole Ceramic Resonator, L9.5*W4.0*H5.5mm, 2 Pins
- Without Built-in load capacitance type.
- Cross more competitors part
- RoHS3 Complaint



APPLICATION

- Measurement Instrument
- Communication Electronics

RFQ

[Request For Quotation](#)

PART CODE GUIDE

CA	3M580000	L	001
1	2	3	4

1. CA: Part family Code for Thru-Hole Ceramic Resonator, L9.5*W4.0*H5.5mm, 2 Pins, CRA Series
2. 3M580000: Frequency range code for 3.580000MHz
3. L: Package code, Packed in Bulk
4. 001: Internal control code Number + Letter (0~9 or A~Z)

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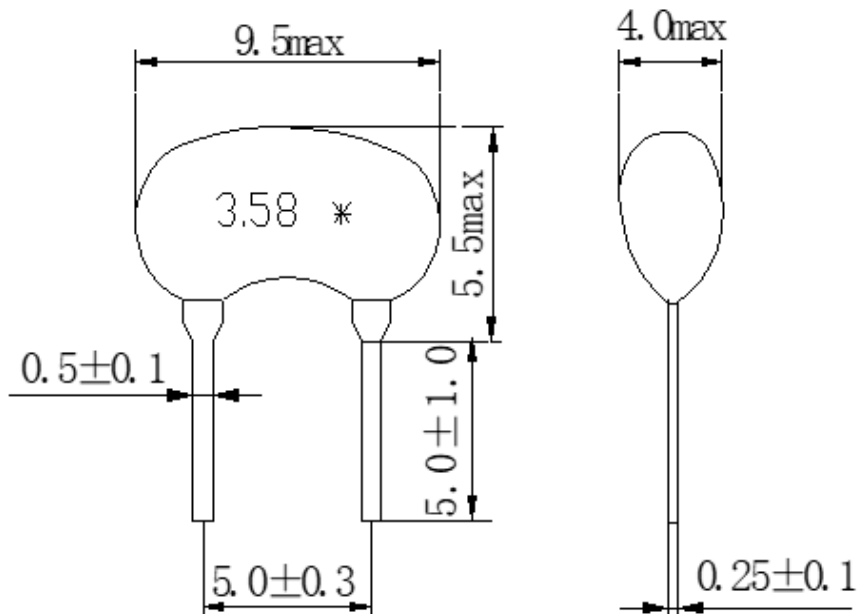
DIMENSION (Unit: mm)

Image for reference



CRA

L9.5*W4.0*H5.5mm



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ELECTRICAL SPECIFICATIONS - Rating

PARAMETER	SYMBOLS	VALUE	UNITS
Withstanding Voltage Max. @DC, 1 min.	-	50	V
Insulation Resistance Min. @10V, 1 min.	R _i	500	mΩ
Operating Junction e Temperature Range	T _J	-25 to +80	°C
Storage Temperature Range	T _{STG}	-55 to +85	°C
Rating Voltage	UR	6	VDC
		15	VP-P

ELECTRICAL CHARACTERISTICS

PART CODE	Oscillation Frequency	Frequency Accuracy	Max. Resonant Impedance	Max. Temperature Coefficient of Oscillation Frequency*	Max. Oscillation Frequency Aging Rate (10years)
	MHz	%	Ω	%	%
CA3M580000L001	3.58	±0.5	30	±0.3	±0.3

Note:

* Components shall be left in a chamber of +85±2°C for 1000 hours, then measured after leaving in natural condition for 1 hour

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RELIABILITY

TEST ITEMS	TEST METHOD AND CONDITIONS	REQUIREMENT
Humidity	Subject the resonator at 40±2°C and 90%-95% R.H. for 500h, resonator shall be measured after being placed in natural conditions for 1h.	It shall meet Specification
High Temperature	Subject the resonator to 85±2°C for 500h, resonator shall be measured after being placed in natural conditions for 1h.	It shall meet Specification
Low Temperature	Subject the resonator to -55±2°C for 500h, resonator shall be measured after being placed in natural conditions for 1h.	It shall meet Specification
Temperature Cycling	After temperature cycling of blow table was performed 5 times, resonator shall be measured after being placed in natural conditions for 1h. Temp.: -25±3°C, Time: 30±3 min ; Temp.: -85±3°C, Time: 30±3 min.	It shall meet Specification
Vibration	Subject the resonator to vibration for 2h. Each in x y and z axis with the amplitude of 1.5mm, The frequency shall be varied uniformly between the limits of 10Hz-55Hz and then resonator shall be measured.	It shall meet Specification
Mechanical Shock	Resonator shall be measured after 3 times random dropping from the height of 1m on concrete floor.	It shall meet Specification
Resistance to Soldering Heat	Resonator shall be measured after 3 times random dropping from the height of 1m on concrete floor.	It shall meet Specification
Soldering Test	Passed through the reflow oven under the following condition, and left at room temp. for 24 hours before measurement.	It shall meet Specification
Solderability	Lead terminals are immersed up to 2mm from resonator's body in soldering bath of 250°C±5°C for 3s±0.5s.	More than 95% of the terminal surface of the filter shall be covered with fresh solder..

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RELIABILITY

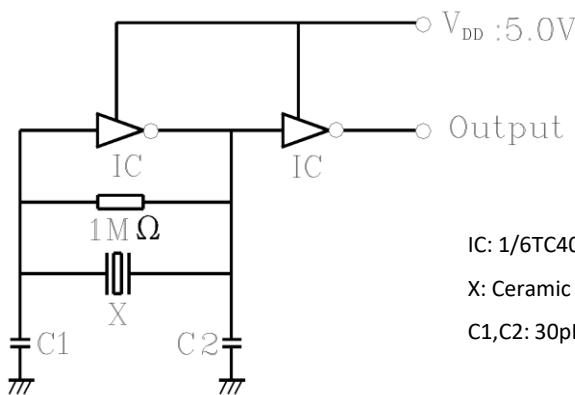
TEST ITEMS	TEST METHOD AND CONDITIONS	REQUIREMENT
Terminal Strength Terminal Pulling Terminal Bending	Force of 5N is applied to each lead in axial direction for 10s±1s. When force of 5N is applied to each lead in axial direction, the lead shall be folded up 90° from the axial direction and folded back to the axial direction. The speed of folding shall be each 3s.	No visible damage and it shall fulfill Table 1.

Table 1

ITEM	SPECIFICATION AFTER TEST
Oscillation Frequency Change $\Delta F_{osc}/F_{osc}$ (%) Max.	±0.3 (Refer to the initial value)
Resonant Impedance (Ω) Max.	30
The limits in the above table are referenced to the initial measurements.	

TEST CIRCUIT (For Reference Only)

- Parts shall be tested under the condition (Temp.: 20±15°C, Humidity 65±20% R.H.) unless the standard Condition (Temp.: 25±2 °C, Humidity :65±5% R.H.) is regulated to measure.



IC: 1/6TC4069UBPx2
 X: Ceramic Resonator
 C1,C2: 30pF

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CAUTION

- Don't apply excess mechanical stress to the component and terminals at soldering. Do not use this product with bend.
- Do not clean or wash the component for it is not hermetically sealed.
- Do not use strong acidity flux, more than 0.2wt% chlorine content, in flow soldering.
- Don't be close to fire.
- This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit
- Expire date (Shelf life) of the products is 12 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 12 months after delivery. If you store the products for a long time (more than 12 months), use carefully because the products may be degraded in the solder-ability or rusty. Please confirm solder-ability and characteristics for the products regularly.
- Exposure components under soldering condition that is exceeding our recommendation will increase the failure dangerous.
- Please contact us before using the product as automobile electronic component.
- Please return one of these specifications after your signature of acceptance.
- When something gets doubtful with this specifications, we shall jointly work to get an agreement.
- For questions on technology, prices and delivery, please contact our sales offices or e-mail:

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 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.
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.
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8. *NextGen* requires that customers first obtain an RMA (Returned Merchandise Authorization) number prior to returning any products. Returns must be made within 30 days of the date of invoice, be in the original packaging, unused and like-new condition. At the time of quoting or purchasing, a product may say that it is Non-Cancelable/ Non-Returnable (NCNR). These products are not returnable and not refundable.