Multilayer Ceramic Chip Capacitor (MLCC)

Original Manufacturer Part Number

TCC0402X7R104K500ATM

0402 (1005 Metric) · X7R · 100 nF· ±10% · 50 VDC

Automotive Level

Product image is shown for identification purposes only. Actual appearance may vary by production lot.

Additional technical, quality, and compliance documentation is available upon request.

NextGen Components, Inc.

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Note:

The following pages include reference information based on materials provided by the original manufacturer. This information is provided for customer reference only and does not constitute a NextGen-issued product specification. Customers should confirm the latest specifications with the original manufacturer or an authorized supply channel when required.

Supplier Reference:

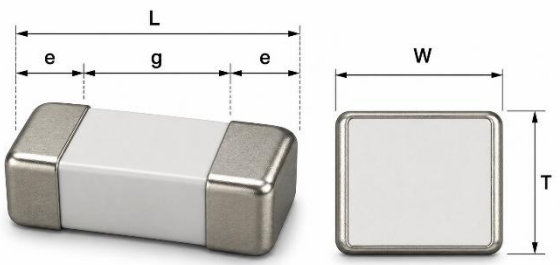
CCTC Specification for Approval / Document No. DRAAW108N/0

Key Specifications

Item	Parameter
Case Size	0402 (1005 Metric)
Dielectric	X7R
Capacitance	100 nF
Tolerance	±10%
Rated Voltage	50 VDC
Temperature Range	−55 °C to +125 °C
Capacitance Characteristic	±15% over −55 °C to +125 °C
Thickness	0.50-0.05/+0.2mm
Packaging	10,000 pcs/reel
Compliance	RoHS compliant / REACH info on request
Moisture Sensitivity Level	Available upon request

Mechanical Outline (Unit: mm)

Name	Symbol	Dimension
Length	L	1.00 -0.05/+0.2
Width	W	0.50 -0.05/+0.2
Termination Length	e	0.15 - 0.30
Gap between terminations	g	0.40 Min.
Thickness	T	0.50 -0.05/+0.2



Outline Notes:

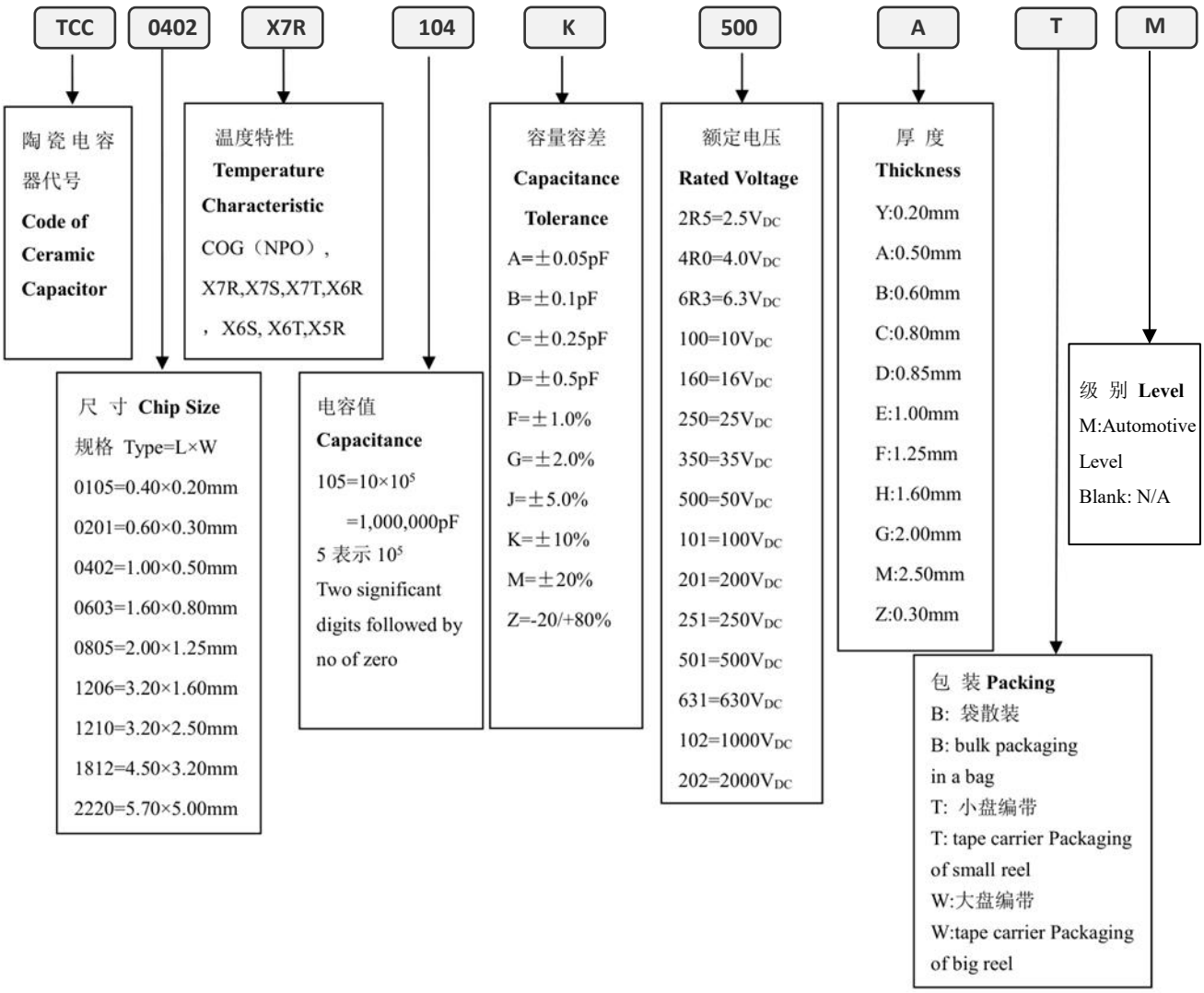
- This drawing is intended for package identification and PCB layout review.
- PCB land pattern should follow the customer's SMT process and design rules.

产 品 标 准 书	编 号 Document No.
SPECIFICATION FOR APPROVAL	DRAAW108N/0

3. 产品规格型号命名规则

General Product Parts Numbering System

(例) (example)



注意：选型时建议使用温度降额 20℃以内，使用电压降额 30%以上。

Attention: It is recommended that the operating temperature drop limit is less than 20℃ and the operating voltage drop limit is more than 30%.

产 品 标 准 书 SPECIFICATION FOR APPROVAL	编 号 Document No. DRAAW108N/0

产品的介质特性组别
Dielectrics Characteristic Group of Product

材质 Dielectrics	工作温度范围 Operating Temperature Range	温度系数或温度特性 Temperature Characteristic
COG（NPO）	-55℃~+125℃	0±30ppm/℃
X7R	-55℃~+125℃	±15%
X7S	-55℃~+125℃	±22%
X7T	-55℃~+125℃	+22/-33%
X6R	-55℃~+105℃	±15%
X6S	-55℃~+105℃	±22%
X6T	-55℃~+105℃	+22/-33%
X5R	-55℃~+85℃	±15%

Document Statement

This product reference guide is prepared by NextGen Components, Inc. for customer reference based on available product information, supplier-provided materials, and NextGen's original layout and explanatory content. It does not constitute the original manufacturer's official datasheet or a NextGen-issued product specification. Product suitability should be assessed against the customer's electrical, thermal, mechanical, environmental, and reliability conditions.

Regulatory Compliance

This product is compliant with applicable RoHS requirements based on available supplier declaration. REACH SVHC information may be available upon request based on the latest applicable candidate list and available supplier documentation. Compliance and regulatory information is provided for reference only and may require verification depending on customer application, region, or regulatory requirements.

Product Information

The information contained in this document is believed to be accurate at the time of publication. Specifications, dimensions, and performance data are subject to change without notice. Customers are advised to confirm the latest product information prior to design-in or order placement.

Suitability for Use

Customers are responsible for determining the suitability of this product for their specific applications, including electrical, thermal, mechanical, environmental, and reliability conditions. Appropriate design margins should be applied for voltage, temperature, capacitance variation, mechanical stress, soldering conditions, and expected service environment.

Restricted Applications

Unless otherwise agreed in writing, this product is not intended for use in life-support systems, medical equipment, aerospace systems, nuclear control equipment, or other applications where product failure may result in personal injury or loss of life.

Supplier Certification

Quality and environmental management system information, including ISO 9001 and ISO 14001 where applicable, is based on available supplier-provided documentation and remains subject to supplier confirmation and document availability.

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