

Multilayer Ceramic Chip Capacitors

Product Top Page

Search by Part No.

Search by Characteristics

Cross Reference

Catalog

Tech Notes

Technical Support Tools

FAQ

C1005X7R1E223K050BB



TDK item description ? C1005X7R1E223KT****

Applications



Commercial Grade

Please refer to Part No. [CGA2B2X7R1E223K050BA](#) for Automotive use.

Feature

General

General (Up to 50V)

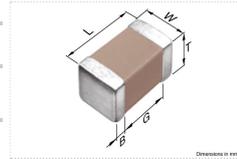
Series

C1005 [EIA 0402]

Status



Production (Not Recommended for New Design)



Images are for reference only and show exemplary products.

PDF file of this page

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Documents

- Catalog
- Specification
- RoHS Certificate
- SVHC/REACH Certificate
- Characterization Sheet
- Promotion Video
- Sample Kits

Technical Support Tools

- S-parameter
- SPICE Netlist (Simple)
- SPICE Netlist (Precision)
- Equivalent Circuit Model
- DC Bias/Superimposition Model (HSPICE)

Pages related to the series to which this product belongs

- Description of icons | Environment

Size

Length(L)	1.00mm ±0.05mm
Width(W)	0.50mm ±0.05mm
Thickness(T)	0.50mm ±0.05mm
Terminal Width(B)	0.10mm Min.
Terminal Spacing(G)	0.30mm Min.
Recommended Land Pattern (PA)	0.30mm to 0.50mm
Recommended Land Pattern (PB)	0.35mm to 0.45mm
Recommended Land Pattern (PC)	0.40mm to 0.60mm

Electrical Characteristics

Capacitance	22nF ±10%
Rated Voltage	25VDC
Temperature Characteristic ?	X7R(±15%)
Dissipation Factor (Max.)	3%
Insulation Resistance (Min.)	10000MΩ

Other

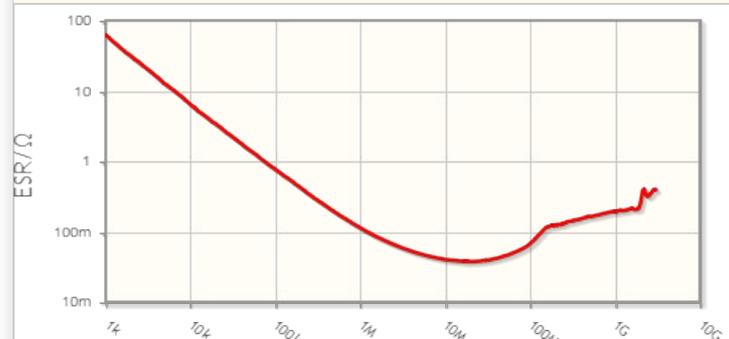
Soldering Method	Reflow
AEC-Q200	No
Packing	Punched (Paper)Taping [180mm Reel]
Package Quantity	10000pcs

Characteristic Graph (This is reference data, and does not guarantee the products characteristics.)

Impedance



ESR



Frequency/Hz

C1005X7R1E223K050BB

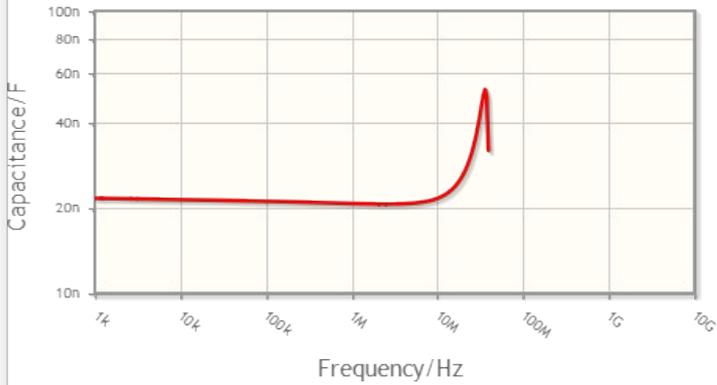
Change settings

Frequency/Hz

C1005X7R1E223K050BB

Change settings

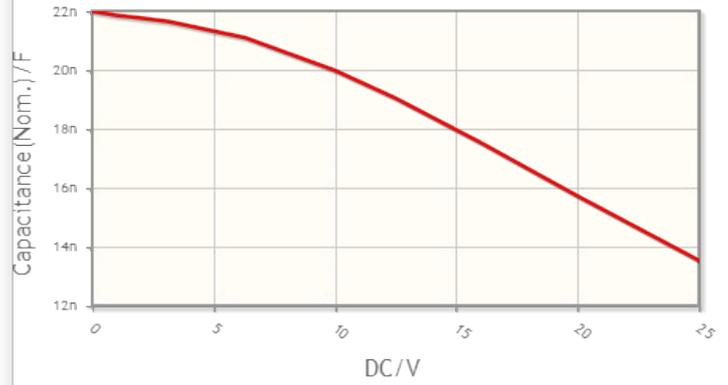
Capacitance



C1005X7R1E223K050BB

Change settings

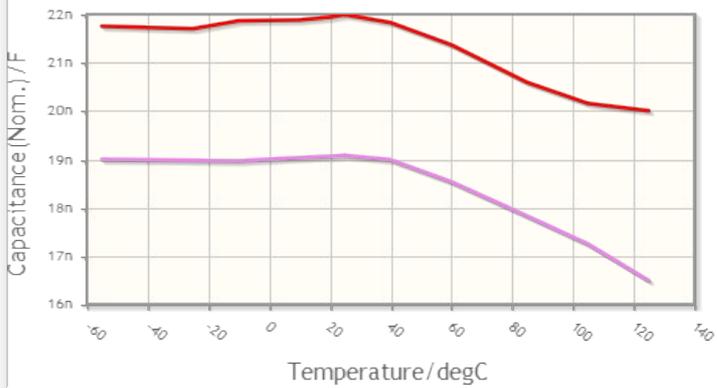
DC Bias Characteristic



C1005X7R1E223K050BB

Change settings

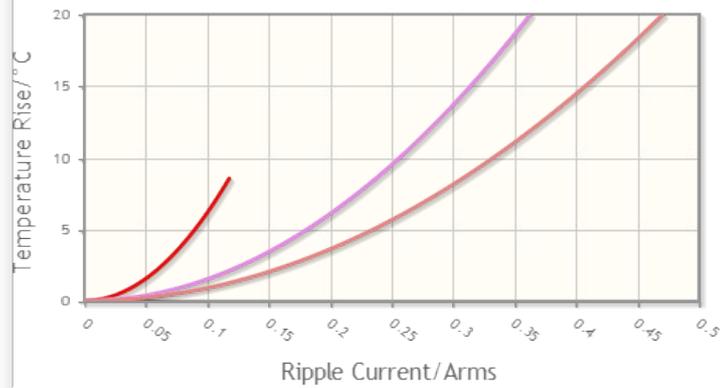
Temperature Characteristic



C1005X7R1E223K050BB(N) C1005X7R1E223K050BB(DC Bias = 12.5V)

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Ripple Temperature Rising



C1005X7R1E223K050BB(100k Hz) C1005X7R1E223K050BB(500k Hz) C1005X7R1E223K050BB(1M Hz)

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» Selection Guide » Search by Part No. » Search by Characteristics » Distributor Inventory Check

- » Capacitors
- » Anechoic Chambers and Radio Wave Absorbers
- » Inductors (Coils)
- » Power Supplies
- » EMC Components
- » Magnets
- » RF Components and Modules
- » Flash Storages
- » Voltage / Current / Temperature Protection Devices
- » Wireless Power Transfer
- » Sensors and Sensor Systems
- » FA Systems
- » Ceramic Switching / Heating, Piezo Components,
- » Transparent Conductive Film
- » Buzzers and Microphones
- » Micro Modules (Substrates with Built-in ICs, Products Utilizing with SESUB)
- » Transformers
- » Solar Cells
- » Ferrites and Accessories
- » Biosensor
- » Noise Suppressing / Magnetic Sheet

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Technical Support

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Environment

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