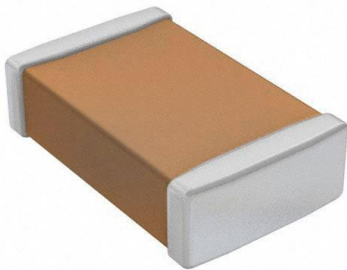


CL03C8R2BA3GNNC Datasheet

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DiGi Electronics Part Number	CL03C8R2BA3GNNC-DG
Manufacturer	Samsung Electro-Mechanics
Manufacturer Product Number	CL03C8R2BA3GNNC
Description	CAP CER 8.2PF 25V COG/NP0 0201
Detailed Description	8.2 pF ±0.1pF 25V Ceramic Capacitor COG, NP0 0201 (0603 Metric)

This model CL03C8R2BA3GNNC is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

CL03C8R2BA3GNNC

Series:

CL

Capacitance:

8.2 pF

Voltage - Rated:

25V

Operating Temperature:

-55°C ~ 125°C

Ratings:

-

Failure Rate:

-

Package / Case:

0201 (0603 Metric)

Height - Seated (Max):

-

Lead Spacing:

-

Manufacturer:

Samsung Electro-Mechanics

Product Status:

Active

Tolerance:

±0.1pF

Temperature Coefficient:

COG, NP0

Features:

-

Applications:

General Purpose

Mounting Type:

Surface Mount, MLCC

Size / Dimension:

0.024" L x 0.012" W (0.60mm x 0.30mm)

Thickness (Max):

0.013" (0.33mm)

Lead Style:

-

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8532.24.0020

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

SPECIFICATION

(Reference sheet)

- Supplier : Samsung electro-mechanics
- Product : Multi-layer Ceramic Capacitor

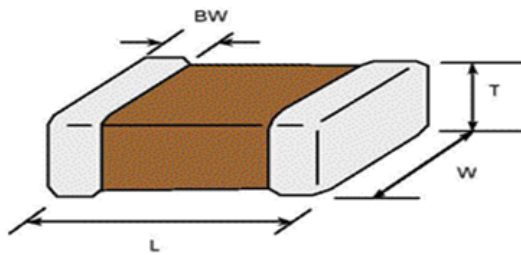
- Samsung P/N : **CL03C8R2BA3GNNC**
- Description : **CAP, 8.2pF, 25V, ±0.1pF, COG, 0201**

A. Samsung Part Number

CL **03** **C** **8R2** **B** **A** **3** **G** **N** **N** **C**
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① Series	Samsung Multi-layer Ceramic Capacitor			
② Size	0201 (inch code)	L: 0.60 ± 0.03 mm	W: 0.30 ± 0.03 mm	
③ Dielectric	COG	⑧ Inner electrode	Cu	
④ Capacitance	8.2 pF	Termination	Cu	
⑤ Capacitance tolerance	±0.1 pF	Plating	Sn 100% (Pb Free)	
⑥ Rated Voltage	25 V	⑨ Product	Normal	
⑦ Thickness	0.30 ± 0.03 mm	⑩ Special	Reserved for future use	
		⑪ Packaging	Cardboard Type, 7" reel	

B. Structure and dimension



Samsung P/N (Lead Free)	Dimension(mm)			
	L	W	T	BW
CL03C8R2BA3GNNC	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05

C. Samsung Reliability Test and Judgement condition

	Performance	Test condition
Capacitance	Within specified tolerance	1MHz±10% 0.5~5Vrms
Q	564 min	
Insulation Resistance	10,000Mohm or 500Mohm· μ F Whichever is smaller	Rated Voltage 60~120 sec.
Appearance	No abnormal exterior appearance	Microscope (\times 10)
Withstanding Voltage	No dielectric breakdown or mechanical breakdown	300% of the rated voltage
Temperature Characteristics	C0G (From -55°C to 125°C, Capacitance change should be within \pm 30PPM/°C)	
Adhesive Strength of Termination	No peeling shall be occur on the terminal electrode	200g·F, for 10 \pm 1 sec.
Bending Strength	Capacitance change : within \pm 5% or \pm 0.5pF whichever is larger	Bending to the limit (1mm) with 1.0mm/sec.
Solderability	More than 75% of terminal surface is to be soldered newly	SnAg3.0Cu0.5 solder 245 \pm 5°C, 3 \pm 0.3sec. (preheating : 80~120°C for 10~30sec.)
Resistance to Soldering heat	Capacitance change : within \pm 2.5% or \pm 0.25pF whichever is larger Tan δ , IR : initial spec.	Solder pot : 270 \pm 5°C, 10 \pm 1sec.
Vibration Test	Capacitance change : within \pm 2.5% or \pm 0.25pF whichever is larger Tan δ , IR : initial spec.	Amplitude : 1.5mm From 10Hz to 55Hz (return : 1min.) 2hours \times 3 direction (x, y, z)
Moisture Resistance	Capacitance change : within \pm 7.5% or \pm 0.75pF whichever is larger Q : 127.33 min IR : 500Mohm or 25Mohm · μ F Whichever is smaller	With rated voltage 40 \pm 2°C, 90~95%RH, 500+12/-0hrs
High Temperature Resistance	Capacitance change : within \pm 3% or \pm 0.3pF whichever is larger Q : 282 min IR : 1,000Mohm or 50Mohm · μ F Whichever is smaller	With 200% of the rated voltage Max. operating temperature 1000+48/-0hrs
Temperature Cycling	Capacitance change : within \pm 2.5% or \pm 0.25pF whichever is larger Tan δ , IR : initial spec.	1 cycle condition Min. operating temperature \rightarrow 25°C \rightarrow Max. operating temperature \rightarrow 25°C 5 cycle test

※ The reliability test condition can be replaced by the corresponding accelerated test condition.

D. Recommended Soldering method :

Reflow (Reflow Peak Temperature : 260+0/-5°C, 10sec. Max)



Product specifications included in the specifications are effective as of March 1, 2013.

Please be advised that they are standard product specifications for reference only.

We may change, modify or discontinue the product specifications without notice at any time.

So, you need to approve the product specifications before placing an order.

Should you have any question regarding the product specifications,

please contact our sales personnel or application engineers.

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