



SPECIFICATION

(Reference sheet)

• Supplier : Samsung electro-mechanics • Samsung P/N : CL03C0R9BA3GNNH

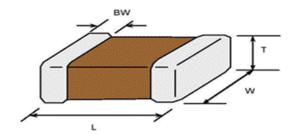
• Product : Multi-layer Ceramic Capacitor • Description : CAP, 0.9pF, 25V, ±0.1pF, C0G, 0201

A. Samsung Part Number

<u>CL</u> <u>03</u> <u>C</u> <u>0R9</u> <u>B</u> <u>A</u> <u>3</u> <u>G</u> <u>N</u> <u>N</u> <u>H</u> 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	C0G	8 Inner electrode	Cu
④ Capacitance	0.9 pF	Termination	Cu
⑤ Capacitance	±0.1 pF	Plating	Sn 100% (Pb Free)
tolerance		Product	Normal
6 Rated Voltage	25 V	Special	Reserved for future use
① Thickness	0.30 ± 0.03 mm	① Packaging	Cardboard Type, 7" reel

B. Structure and dimension



Samsung P/N	Dimension(mm)				
(Lead Free)	L	W	Т	BW	
CL03C0R9BA3GNNH	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	

C. Samsung Reliability Test and Judgement condition

Capacitance Wi	the transport of the language			
	ithin specified tolerance	1Mb±10% 0.5~5Vrms		
Q	418 min			
Insulation 10),000Mohm or 500Mohm⋅μF	Rated Voltage 60~120 sec.		
Resistance W	/hichever is smaller			
Appearance No	o abnormal exterior appearance	Microscope (×10)		
Withstanding No.	o dielectric breakdown or	300% of the rated voltage		
Voltage me	echanical breakdown			
Temperature C0	COG			
Characteristics (Fr	(From -55 ℃ to 125 ℃, Capacitance change should be within ±30PPM/ ℃)			
Adhesive Strength No.	peeling shall be occur on the	200g·F, for 10±1 sec.		
of Termination ter	rminal electrode			
Bending Strength Ca	apacitance change :	Bending to the limit (1mm)		
within ±5% or ±0.5pF whichever is larger		with 1.0mm/sec.		
Solderability Mo	ore than 75% of terminal surface	SnAg3.0Cu0.5 solder		
is	to be soldered newly	245±5℃, 3±0.3sec.		
		(preheating : 80~120 ℃ for 10~30sec.)		
Resistance to Ca	apacitance change :	Solder pot : 270±5℃, 10±1sec.		
Soldering heat wit	thin ±2.5% or ±0.25pF whichever is larger			
Та	an δ, IR : initial spec.			
Vibration Test Ca	apacitance change :	Amplitude : 1.5mm		
wit	thin ±2.5% or ±0.25pF whichever is larger	From 10Hz to 55Hz (return : 1min.)		
Та	an δ, IR : initial spec.	2hours × 3 direction (x, y, z)		
Moisture Ca	apacitance change :	With rated voltage		
Resistance wit	thin ±7.5% or ±0.75pF whichever is larger	40±2℃, 90~95%RH, 500+12/-0hrs		
Q	: 103 min			
IR	: 500Mohm or 25Mohm $\cdot \mu F$			
	Whichever is smaller			
High Temperature Ca	apacitance change :	With 200% of the rated voltage		
Resistance wit	thin ±3% or ±0.3pF whichever is larger	Max. operating temperature		
Q	: 209 min	1000+48/-0hrs		
IR	· '			
	Whichever is smaller			
-	apacitance change :	1 cycle condition		
Cycling wit	thin ±2.5% or ±0.25pF whichever is larger	er Min. operating temperature → 25 °C		
Та	an δ, IR : initial spec.	$ ightarrow$ Max. operating temperature $ ightarrow$ 25 $^{\circ}\!$		
		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)

A 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.

- Disclaimer & Limitation of Use and Application -

The products listed in this Specification sheet are **NOT** designed and manufactured for any use and applications set forth below.

Please note that any misuse of the products deviating from products specifications or information provided in this Spec sheet may cause serious property damages or personal injury.

We will **NOT** be liable for any damages resulting from any misuse of the products, specifically including using the products for high reliability applications as listed below.

If you have any questions regarding this 'Limitation of Use and Application', you should first contact our sales personnel or application engineers.

- ① Aerospace/Aviation equipment
- ② Automotive or Transportation equipment (vehicles, trains, ships, etc)
- 3 Medical equipment
- Military equipment
- 5 Disaster prevention/crime prevention equipment
- Any other applications with the same as or similar complexity or reliability to the applications set forth above.