



SPECIFICATION

(Reference sheet)

• Supplier : Samsung electro-mechanics • Samsung P/N : CL03C2R7BA3GNNH

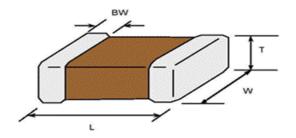
• Product : Multi-layer Ceramic Capacitor • Description : CAP, 2.7pF, 25V, ±0.1pF, C0G, 0201

A. Samsung Part Number

<u>CL</u> <u>03</u> <u>C</u> <u>2R7</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	2.7 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	
CL03C2R7BA3GNNH	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	

C. Samsung Reliability Test and Judgement condition

Capacitance W				
Capacitance vv	/ithin specified tolerance	1tht±10% 0.5~5Vrms		
Q	454 min			
Insulation 10	0,000Mohm or 500Mohm⋅ <i>μ</i> F	Rated Voltage 60~120 sec.		
Resistance V	Vhichever is smaller			
Appearance No	o abnormal exterior appearance	Microscope (×10)		
Withstanding No	o dielectric breakdown or	300% of the rated voltage		
Voltage m	nechanical breakdown			
Temperature Co	COG			
Characteristics (F	(From -55 ℃ to 125 ℃, Capacitance change should be within ±30PPM/ ℃)			
Adhesive Strength No.	o peeling shall be occur on the	200g⋅F, for 10±1 sec.		
of Termination te	erminal electrode			
Bending Strength Ca	apacitance change :	Bending to the limit (1mm)		
wi	ithin ±5% or ±0.5pF whichever is larger	with 1.0mm/sec.		
Solderability M	lore 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 wi	ithin ±2.5% or ±0.25pF whichever is larger			
Ta	an δ, IR : initial spec.			
Vibration Test Ca	apacitance change :	Amplitude : 1.5mm		
wi	rithin ±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 wi	rithin ±7.5% or ±0.75pF whichever is larger	40±2℃, 90~95%RH, 500+12/-0hrs		
Q	: 109 min			
IR	R: 500Mohm or 25Mohm $\cdot \mu$ F			
	Whichever is smaller			
High Temperature Ca	apacitance change :	With 200% of the rated voltage		
Resistance wi	ithin ±3% or ±0.3pF whichever is larger	Max. operating temperature		
Q	227 min	1000+48/-0hrs		
IR	R: 1,000Mohm or 50Mohm $\cdot \mu$ F			
	Whichever is smaller			
I	apacitance change :	1 cycle condition		
Cycling within ±2.5% or ±0.25pF whichever is large		, , ,		
Ta	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.