



SPECIFICATION

(Reference sheet)

• Supplier : Samsung electro-mechanics • Samsung P/N : CL03C1R5BA3GNNH

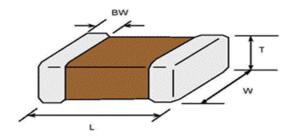
• Product : Multi-layer Ceramic Capacitor • Description : CAP, 1.5pF, 25V, ±0.1pF, C0G, 0201

A. Samsung Part Number

<u>CL</u> <u>03</u> <u>C</u> <u>1R5</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
Capacitance	1.5 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	
CL03C1R5BA3GNNH	0.60±0.03	0.30±0.03	0.30±0.03	0.15±0.05	

C. Samsung Reliability Test and Judgement condition

	specified tolerance	4111 . 400/		
0 4		1Mb±10% 0.5~5Vrms		
, i	30 min			
Insulation 10,000	Mohm or 500Mohm⋅ <i>μ</i> F	Rated Voltage 60~120 sec.		
Resistance Which	ever is smaller			
Appearance No abr	normal exterior appearance	Microscope (×10)		
Withstanding No die	lectric breakdown or	300% of the rated voltage		
Voltage mecha	nical breakdown			
Temperature C0G	COG			
Characteristics (From	(From -55 ℃ to 125 ℃, Capacitance change should be within ±30PPM/℃)			
Adhesive Strength No pee	eling shall be occur on the	200g⋅F, for 10±1 sec.		
of Termination termina	al electrode			
Bending Strength Capac	itance change :	Bending to the limit (1mm)		
within :	±5% or ±0.5pF whichever is larger	with 1.0mm/sec.		
Solderability More to	nan 75% of terminal surface	SnAg3.0Cu0.5 solder		
is to be	e soldered newly	245±5℃, 3±0.3sec.		
		(preheating : 80~120 ℃ for 10~30sec.)		
Resistance to Capac	itance change :	Solder pot : 270±5℃, 10±1sec.		
Soldering heat within:	±2.5% or ±0.25pF whichever is larger			
Tan δ,	IR : initial spec.			
Vibration Test Capac	itance change :	Amplitude : 1.5mm		
within:	±2.5% or ±0.25pF whichever is larger	From 10Hz to 55Hz (return : 1min.)		
Tan δ,	IR : initial spec.	2hours × 3 direction (x, y, z)		
Moisture Capac	itance change :	With rated voltage		
Resistance within :	±7.5% or ±0.75pF whichever is larger	40±2℃, 90~95%RH, 500+12/-0hrs		
Q:	105 min			
IR:	500Mohm or 25Mohm $\cdot \mu \text{F}$			
	Whichever is smaller			
High Temperature Capac	itance change :	With 200% of the rated voltage		
Resistance within :	±3% or ±0.3pF whichever is larger	Max. operating temperature		
Q:	215 min	1000+48/-0hrs		
IR:	1,000Mohm or 50Mohm $\cdot \mu$ F			
	Whichever is smaller			
	itance change :	1 cycle condition		
Cycling within ±2.5% or ±0.25pF whichever is large		· · · · · · · · · · · · · · · · · · ·		
Tan 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.