



SPECIFICATION

• Supplier : Samsung electro-mechanics • Samsung P/N : CL21CR82CBANNNC

• Product : Multi-layer Ceramic Capacitor • Description : CAP, 0.82pF, 50V, ±0.25pF, C0G, 080\$

A. Samsung Part Number

<u>CL</u> <u>21</u> <u>C</u> <u>R82</u> <u>C</u> <u>B</u> <u>A</u> <u>N</u> <u>N</u> <u>N</u> <u>C</u> ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

1	Series	Samsung Multi-layer Ceramic Capacitor					
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2	Size	0805 (inch co	ode) L: 2.0	± 0.1 mi	m W:	1.25 ± 0.1	mm
3	Dielectric	C0G	8	Inner electr	ode	Ni	
4	Capacitance	0.82 pF		Termination	า	Cu	
(5)	Capacitance	±0.25 pF		Plating		Sn 100%	(Pb Free)
	tolerance		9	Product		Normal	
6	Rated Voltage	50 V	10	Special		Reserved for	future use
(7)	Thickness	0.65 ± 0.1	mm (1)	Packaging		Cardboard T	ype,7"reel(4,000ea)

B. Samsung Reliability Test and Judgement condition

	Performance	Test condition				
Capacitance	Within specified tolerance	1M±10% 0.5~5Vrms				
Q	416.4 min	7				
Insulation	More than 500Mohm⋅ <i>μ</i> Γ	Rated Voltage 60~120 sec.				
Resistance						
Appearance	No abnormal exterior appearance	Visual inspection				
Withstanding	No dielectric breakdown or	300% of the rated voltage				
Voltage	mechanical breakdown					
Temperature	COG					
Characteristics	(From -55℃ to 125℃, Capacitance change should be within ±30PPM/℃)					
Adhesive Strength	No peeling shall be occur on the	500g·F, for 10±1 sec.				
of Termination	terminal electrode					
Bending Strength	Capacitance change: within ±0.5pF	Bending to the limit (1mm)				
		with 1.0mm/sec.				
Solderability	More 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	Capacitance change : within ±0.25pF	Solder pot : 270±5℃, 10±1sec.				
Soldering heat	Tan δ, IR : initial spec.					

	Performance	Test condition			
Vibration Test	Capacitance change: within ±0.25pF	Amplitude : 1.5mm			
	Tan δ, IR : initial spec.	From 10Hz to 55Hz (return : 1min.)			
		2hours × 3 direction (x, y, z)			
Moisture	Capacitance change: within ±0.75pF	With rated voltage			
Resistance	Q: 102.73 min	40±2℃, 90~95%RH, 500 +12/-0 hour			
	IR : More than 25‰ μF				
High Temperature	Capacitance change: within ±0.3pF	With 200% of the rated voltage			
Resistance	Q: 277.05 min	Max. operating temperature			
	IR : More than $50 \mathrm{M}\Omega \cdot \mu\mathrm{F}$	1000+48/-0 hour			
Temperature	Capacitance change: within ±0.25pF	1 cycle condition			
Cycling	Tan δ, IR : initial spec.	Min. operating temperature → 25°C			
		$ ightarrow$ Max. operating temperature $ ightarrow$ 25 $^{\circ}$ C			
		5 cycles test			

C. Recommended Soldering method :

Reflow (Reflow Peak Temperature : 260+0/-5 $^{\circ}$ C , 10sec. Max)

^{*} For the more detail Specification, Please refer to the Samsung MLCC catalogue.