SAMSUNG ELECTRO-MECHANICS

RoHS+Halogen Compliant ecoparts

SPECIFICATION (Reference sheet)

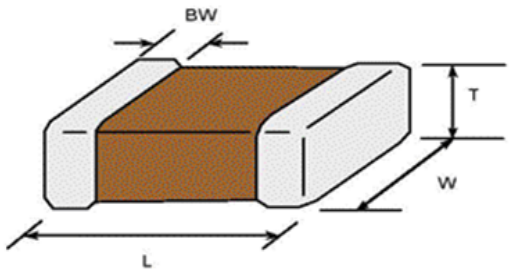
· **Supplier : Samsung electro-mechanics**
· **Product : Multi-layer Ceramic Capacitor**
· **Samsung P/N : CL31C510JBCNNNC**
· **Description : CAP, 51pF, 50V, ± 5%, C0G, 1206**

A. Samsung Part Number

CL	31	C	510	J	B	C	N	N	N	C
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪

①	**Series**	Samsung Multi-layer Ceramic Capacitor			
②	**Size**	1206 (inch code)	L: 3.20 ± 0.15 mm	W: 1.60 ± 0.15 mm	
③	**Dielectric**	C0G	⑧	**Inner electrode**	Ni
④	**Capacitance**	51 pF		**Termination**	Cu
⑤	**Capacitance tolerance**	± 5%		**Plating**	Sn 100% (Pb Free)
			⑨	**Product**	Normal
⑥	**Rated Voltage**	50 V	⑩	**Special**	Reserved for future use
⑦	**Thickness**	0.85 ± 0.15 mm	⑪	**Packaging**	Cardboard Type, 7" reel

B. Structure and dimension



Samsung P/N (Lead Free)	Dimension(㎜)			
	L	W	T	BW
CL31C510JBCNNNC	3.20 ± 0.15	1.60 ± 0.15	0.85 ± 0.15	0.50 ± 0.30

C. Samsung Reliability Test and Judgement condition

	Performance	Test condition
Capacitance	Within specified tolerance	1㎒±10% / 0.5~5Vrms
Q	1,000 min	
Insulation Resistance	10,000Mohm or 500Mohm×㎌ Whichever is smaller	Rated Voltage 60~120 sec.
Appearance	No abnormal exterior appearance	Microscop (X10)
Withstanding Voltage	No dielectric breakdown or mechanical breakdown	300% of the rated voltage
Temperature Characteristics	C0G (From -55℃ to 125℃, Capacitance change should be within ±30PPM/℃)	
Adhesive Strength of Termination	No peeling shall be occur on the terminal electrode	500g×F, for 10±1 sec.
Bending Strength	Capacitance change : within ±5% or ±0.5㎊ 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±5℃, 3±0.3sec. (preheating : 80~120℃ for 10~30sec.)
Resistance to Soldering heat	Capacitance change : within ±2.5% or ±0.25㎊ whichever is larger Tan δ, IR : initial spec.	Solder pot : 270±5℃, 10±1sec.
Vibration Test	Capacitance change : within ±2.5% or ±0.25㎊ whichever is larger Tan δ, IR : initial spec.	Amplitude : 1.5mm From 10㎐ to 55㎐ (return : 1min.) 2hours ´ 3 direction (x, y, z)
Moisture Resistance	Capacitance change : within ±7.5% or ±0.75㎊ whichever is larger Q : 200 min IR : 500Mohm or 25Mohm × ㎌ Whichever is smaller	With rated voltage 40±2℃, 90~95%RH, 500+12/-0hrs
High Temperature Resistance	Capacitance change : within ±3% or ±0.3㎊ whichever is larger Q : 350 min IR : 1,000Mohm or 50Mohm × ㎌ Whichever is smaller	With 200% of the rated voltage Max. operating temperature 1000+48/-0hrs
Temperature Cycling	Capacitance change : within ±2.5% or ±0.25㎊ whichever is larger Tan δ, IR : initial spec.	1 cycle condition Min. operating temperature → 25℃ → Max. operating temperature → 25℃ 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℃, 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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for samsung ***manufacturer:***

Other Similar products are found below :

DA61-04475B DA97-17194A RC2012F2001CS CL10B472JB8NNND KM44C4100BK-60 CL05C160JB5NCNC CL21C151FBANNWC M471B5673EH1-CH900 K4H510838B-TCB3 RC1608F86R6CS CL31C120JBCNNNC CL21CR47BBANNNC CL32C103JBFNNNE CL31B223JBCNNNC CL21C221JDCNFNC CL21B223KBANNWC CL10B563KB8NFNC CL10B473KB8SFNC CL10B122KB8NFNC SI-B8T171550WW SL-B8V2N70LAWW BN96-35590A BN96-31876D DC97-15103A DA67-02638B BN96-32239D BN39-02189A BN39-02190A DA61-08574A DA97-17215A DC47-00027F AH59-02748B 3903-001209 RC1005F103CS RF062PJ150CS CL10A335MQ8NNNC CL10B823KA8NNNC CL10C680JB8NFNC CL31B681KHFNFNE CL31C101JCCNFNC RC1608F753CS RC1005FR100CS CL10F334ZO8NNNC CL31C331KBCNBNC CL31B683KBCNNNC CL21C2R4CBANNNC CL05B104MP5NNNC DC97-16350E AH81-09068A DC66-00814A