



**THE DATASHEET OF  
CL32B106KBJZW6E**



# SPECIFICATION

(Reference sheet)

- Supplier : Samsung electro-mechanics
- Product : Multi-layer Ceramic Capacitor

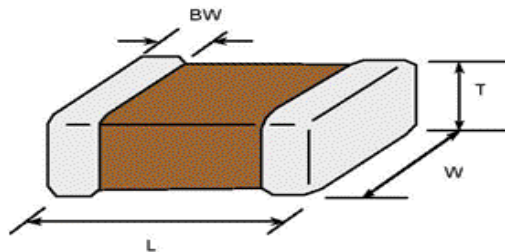
- Samsung P/N : **CL32B106KBJZW6E**
- Description : **CAP, 10uF, 50V, ±10%, X7R, 1210**

## A. Samsung Part Number

**CL 32 B 106 K B J Z W 6 E**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

① <b>Series</b>	Samsung Multi-layer Ceramic Capacitor		
② <b>Size</b>	1210 (inch code)	L : 3.20 ± 0.30 mm	W : 2.50 ± 0.20 mm
③ <b>Dielectric</b>	X7R	⑧ <b>Inner electrode Termination</b>	Ni Soft termination
④ <b>Capacitance</b>	10 uF	<b>Plating</b>	Sn 100% (Pb Free)
⑤ <b>Capacitance tolerance</b>	±10 %	⑨ <b>Product</b>	Industrial (Network,Power,etc)
⑥ <b>Rated Voltage</b>	50 V	⑩ <b>Special</b>	Higher bending strength
⑦ <b>Thickness</b>	2.50 ± 0.20 mm	⑪ <b>Packaging</b>	Embossed Type, 7" reel

## B. Structure & Dimension



Samsung P/N	Dimension(mm)			
	L	W	T	BW
CL32B106KBJZW6E	3.20 ± 0.30	2.50 ± 0.20	2.50 ± 0.20	0.60 ± 0.30

### C. Samsung Reliability Test and Judgement Condition

	Judgement	Test condition
Capacitance	Within specified tolerance	1kHz ±10% / 1.0±0.2Vrms
Tan δ (DF)	0.1 max.	*A capacitor prior to measuring the capacitance is heat treated at 150°C+0/-10°C for 1hour and maintained in ambient air for 24±2 hours.
Insulation Resistance	10,000Mohm or 100Mohm×μF Whichever is smaller	Rated Voltage 60~120 sec
Appearance	No abnormal exterior appearance	Microscope (×10)
Withstanding Voltage	No dielectric breakdown or mechanical breakdown	250% of the rated voltage
Temperature Characteristics	X7R (From -55°C to 125°C, Capacitance change should be within ±15%)	
Adhesive Strength of Termination	No peeling shall be occur on the terminal electrode	500g-f, for 10±1 sec.
Bending Strength	Capacitance change : within ±12.5%	Bending to the limit (3mm) with 1.0mm/sec.
Solderability	More than 75% of terminal surface is to be soldered newly	SnAg3.0Cu0.5 solder 245±5°C, 3±0.3sec. (preheating : 80~120°C for 10~30sec.)
Resistance to Soldering Heat	Capacitance change : within ±7.5% Tan δ, IR : initial spec.	Solder pot : 270±5°C, 10±1sec.
Vibration Test	Capacitance change : within ± 5% Tan δ, IR : initial spec.	Amplitude : 1.5mm From 10Hz to 55Hz (return : 1min.) 2hours × 3 direction (x, y, z)
Moisture Resistance	Capacitance change : within ±12.5% Tan δ : 0.125 max IR : 500Mohm or 12.5Mohm × μF Whichever is smaller	With rated voltage 40±2°C, 90~95%RH, 500+12/-0hrs
High Temperature Resistance	Capacitance change : within ±12.5% Tan δ : 0.125 max IR : 1,000Mohm or 25Mohm × μF Whichever is smaller	With 150% of the rated voltage Max. operating temperature 1,000+48/-0hrs
Temperature Cycling	Capacitance change : within ±7.5% Tan δ, IR : initial spec.	1 cycle condition Min. operating temperature → 25°C → Max. operating temperature → 25°C  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±5°C, 30sec)



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.

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- ⑥ Power plant control equipment
- ⑦ Atomic energy-related equipment
- ⑧ Undersea equipment
- ⑨ Traffic signal equipment
- ⑩ Data-processing equipment
- ⑪ Electric heating apparatus, burning equipment
- ⑫ Safety equipment
- ⑬ Any other applications with the same as or similar complexity or reliability to the applications

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