



SPECIFICATION

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

- Samsung P/N : **CL21C152JBFNNG**
- Description : **CAP, 1.5nF, 50V, ±5%, COG, 0805**

A. Samsung Part Number

CL 21 C 152 J B F N N N G
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

| | | | |
|-------------------------|---------------------------------------|-------------------|--------------------------------|
| ① Series | Samsung Multi-layer Ceramic Capacitor | | |
| ② Size | 0805 (inch code) | L: 2.0 ± 0.1 mm | W: 1.25 ± 0.1 mm |
| ③ Dielectric | C0G | ⑧ Inner electrode | Ni |
| ④ Capacitance | 1.5 nF | Termination | Cu |
| ⑤ Capacitance tolerance | ±5 % | Plating | Sn 100% (Pb Free) |
| ⑥ Rated Voltage | 50 V | ⑨ Product | Normal |
| ⑦ Thickness | 1.25 ± 0.1 mm | ⑩ Special | Reserved for future use |
| | | ⑪ Packaging | Embossed Type, 7"reel(3,000ea) |

B. Samsung Reliability Test and Judgement condition

| | Performance | Test condition |
|----------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Capacitance | Within specified tolerance | 1kHz±10% 0.5~5Vrms |
| Q | 1000 min | |
| Insulation Resistance | More than 500Mohm·μF | Rated Voltage 60~120 sec. |
| Appearance | No abnormal exterior appearance | Visual inspection |
| 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% | 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% Tan δ, IR : initial spec. | Solder pot : 270±5℃, 10±1sec. |

| | Performance | Test condition |
|------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vibration Test | Capacitance change : within $\pm 2.5\%$ Tan δ , IR : initial spec. | Amplitude : 1.5mm From 10Hz to 55Hz (return : 1min.) 2hours \times 3 direction (x, y, z) |
| Moisture Resistance | Capacitance change : within $\pm 7.5\%$ Q : 200 min IR : More than $25M\Omega \cdot \mu F$ | With rated voltage $40 \pm 2^\circ C$, 90~95%RH, 500 +12/-0 hours |
| High Temperature Resistance | Capacitance change : within $\pm 3\%$ Q : 350 min IR : More than $50M\Omega \cdot \mu F$ | With 200% of the rated voltage Max. operating temperature 1000+48/-0 hours |
| Temperature Cycling | Capacitance change : within $\pm 2.5\%$ Tan δ , IR : initial spec. | 1 cycle condition Min. operating temperature $\rightarrow 25^\circ C$ \rightarrow Max. operating temperature $\rightarrow 25^\circ C$ 5 cycles test |

C. Recommended Soldering method :

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

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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Multilayer Ceramic Capacitors MLCC - Leaded](#) category:

Click to view products by [Samsung](#) manufacturer:

Other Similar products are found below :

[010-007220-002REV A](#) [M39014/01-1210V](#) [M39014/01-1281V](#) [M39014/01-1335V](#) [M39014/01-1571V](#) [M39014/01-1578V](#) [M39014/01-1593](#)
[M39014/02-1347](#) [M39014/02-1350](#) [M39014/22-0167](#) [M39014/22-0734](#) [87043-49](#) [Q52-DK](#) [C410C221K1G5TATR](#) [C420C102J1G5TATR](#)
[C430C104M1U5TATR](#) [SL155C222MAB](#) [CCR06CG183GRV](#) [CFB1/2C101J](#) [CFB1/2C102J](#) [CN20C102K](#) [M39014/01-1317](#) [M39014/01-](#)
[1572V](#) [M39014/01-1594V](#) [M39014/02-1236](#) [M39014/02-1321V](#) [M39014/02-1345V](#) [M39014/22-0351](#) [M39014/22-0695](#) [M39014/220767](#)
[M39014/220788](#) [M39014/22-1005](#) [MA405E334MAA](#) [MD015A103KAB](#) [SL301E105MAB](#) [KTD101B684M32A0B00](#) [CCR07CG473KR](#)
[CCR05CG820JP](#) [TKC-TMC1206-05-1501-J??](#) [TKC-TMC1206-05-1801-J](#) [TKC-TMC1206-05-20R0-F](#) [TKC-TMC1206-05-3901-J](#) [TKC-](#)
[TMC1206-05-44R2-F](#) [TKC-TMC1206-05-4703-J??](#) [TKC-TMC2512-05-1211-F](#) [100B5R1CT500X](#) [100B3R9CT500X](#) [M39014/22-0869](#)
[M39014/220556](#) [M39014/22-1045](#)