

# Test Sheet of Monolithic Ceramic Capacitor

## GJM15(0402/1005) series [Temperature Compensating Type]



| Typical Murata Global Part No                    | Size (inch/mm)   | Temp. Chara. | Cap.Value    | Cap.Tol.         | Volt.      |
|--|------------------|--------------|--------------|------------------|------------|
| <b>GJM1555C1H1R0CB01<br/>(MADE IN SINGAPORE)</b> | <b>0402/1005</b> | <b>C0G</b>   | <b>1.0pF</b> | <b>+/-0.25pF</b> | <b>50V</b> |
| <b>GJM1555C1H1R0CB01<br/>(MADE IN JAPAN)</b>     | <b>0402/1005</b> | <b>C0G</b>   | <b>1.0pF</b> | <b>+/-0.25pF</b> | <b>50V</b> |

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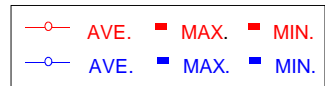
Murata Manufacturing Co., Ltd.

Operating Temperature Range / 使用温度範囲: -55 ~ +125°C

| Tested Item/<br>試験項目                     | Tested Condition/<br>試験条件  | Result/試験結果<br>(Rejection Number/Sample Number) |      |
|--|--|---|------|
|  |  |   |      |
| 1.Adhesive Strength of Termination / 固着性 | Substrate/基板: Glass-epoxy<br>Pressurization Power / 加圧力: 5N<br>Keeping Time / 保持時間: 10±1s<br>Solder Type / はんだ種類: Sn-3.0Ag-0.5Cu<br>Pressuring Speed/加圧速度: 0.5 mm/sec  | 0/10  | 0/10 |
| 2.Vibration Resistance/ 耐振性              | Oscillation Frequency/振動周波数: 10Hz to 55Hz to 10Hz for 1min.<br>Total Amplitude/全振幅: 1.5 mm<br>Time/時間: A period of 2 hours in each of 3 mutually perpendicular directions.<br>(Total 6 hours)  | 0/10  | 0/10 |
| 3.Deflection / 耐基板曲げ性                    | Substrate/基板: Glass-epoxy (100mm x 40mm x 0.8mm)<br>Deflection/たわみ量: 1mm<br>Keeping Time/保持時間: 5±1s<br>Pressure jig/加圧治具: R230mm   | 0/10  | 0/10 |
| 4.Solderability of Termination / はんだ付け性  | Flux/フラックス: Ethanol solution of rosin 25(wt)%<br>Solder/はんだ: Sn-3.0Ag-0.5Cu<br>Solder Temperature/はんだ温度: 245±5°C<br>Immersion Time/浸せき時間: 2s±0.5s<br>Immersion Position/浸せき位置: Covering terminal electrode<br>/ 端子電極が隠れるところまで。<br>Preheat/試験前予熱: 80 to 120°C for 10-30 sec | 0/10  | 0/10 |
| 5.Resistance to soldering Heat/ はんだ耐熱性   | Solder/はんだ: Sn-3.0Ag-0.5Cu<br>Solder Temperature/はんだ温度: 270±5°C<br>Immersion Time/浸せき時間: 10s±0.5s<br>Immersion Position/浸せき位置: Covering terminal electrode<br>/ 端子電極が隠れるところまで。<br>Preheating/試験前予熱: 120 to 150°C for 60 sec  | 0/10  | 0/10 |
| 6.Temperature Cycle/温度サイクル               | 1 Cycle condition/1サイクル条件<br>step 1: Min. Operating Temp.(+0°C,-3°C) , 30min±3min<br>step 2: Ordinary Temp.,2min to 3 min<br>step 3: Max. Operating Temp.(+3°C,-0°C) , 30min±3min<br>step 4: Ordinary Temp.,2min to 3 min<br>Cycle/回数: 5 cycles                            | 0/10  | 0/10 |
| 7.Humidity (Steady State)/ 耐湿性           | Temperature/温度: 40°C±2°C<br>Humidity/湿度: 90%(RH) to 95%(RH)<br>Time/時間: 500±12h  | 0/10  | 0/10 |
| 8.Humidity Load/ 耐湿負荷                    | Temperature/温度: 40°C±2°C<br>Humidity/湿度: 90%(RH) to 95%(RH)<br>Voltage/電圧: The Rated Voltage/定格電圧<br>Time/時間: 500±12h  | 0/10  | 0/10 |
| 9.High Temperature Load/ 高温負荷            | Temperature/温度: Max. Operating Temp.±3°C<br>Voltage/電圧: Apply 200% of the rated voltage / 定格電圧 x 200%<br>Time/時間: 1000±12h   | 0/10  | 0/10 |

Note: These test condition and specification are for the typical item.

| Typical Murata Global Part No            | Size (inch/mm) | Temp. Chara. | Cap.Value | Cap.Tol.  | Volt. |
|--|----------------|--------------|-----------|-----------|-------|
| GJM1555C1H1R0CB01<br>(MADE IN SINGAPORE) | 0402/1005      | C0G          | 1.0pF     | +/-0.25pF | 50V   |
| GJM1555C1H1R0CB01<br>(MADE IN JAPAN)     | 0402/1005      | C0G          | 1.0pF     | +/-0.25pF | 50V   |



| Tested Item/<br>試験項目                     | Confirmed Criteria/<br>評価項目    | Specification and Result / 規格値 および 試験結果   |    |  |  |  |
|--|--------------------------------|---|----|--|--|--|
| 1.Adhesive Strength of Termination / 固着性 | Appearance/外観                  | No defects including no peeling of the termination. 端子電極のはく離及びその他異常はありません。                      | OK |  |  |  |
| 2.Vibration/ 耐振性                         | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance / 静電容量             | 0.75 to 1.25pF  |    |  |  |  |
|  | Q                              | 420 (min.)  |    |  |  |  |
| 3.Deflection/ 耐基板曲げ性                     | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.5pF (within)   | OK |  |  |  |
| 4.Solderability / はんだ付け性                 | Wetting area/ はんだ付き面積          | 75% of the termination is to be soldered evenly and continuously./ 端子電極の3/4以上に切れ目なくはんだが付着しています。 | OK |  |  |  |
| 5.Resistance to Soldering Heat/ はんだ耐熱性   | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.25pF (within)  |    |  |  |  |
|  | Q                              | 420 (min.)  |    |  |  |  |
|  | IR/絶縁抵抗(MΩ)                    | 10000 (min.)  |    |  |  |  |
|  | Dielectric Strength/ 耐電圧       | No defects/異常ありません。   | OK |  |  |  |
| 6.Temperature Cycle/ 温度サイクル              | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.25pF (within)  |    |  |  |  |
|  | Q                              | 420 (min.)  |    |  |  |  |
|  | IR/絶縁抵抗(MΩ)                    | 10000 (min.)  |    |  |  |  |
|  | Dielectric Strength/ 耐電圧       | No defects/異常ありません。   | OK |  |  |  |
| 7.Humidity (Steady State)/ 耐湿性           | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.5pF (within)   |    |  |  |  |
|  | Q                              | 210 (min.)  |    |  |  |  |
|  | IR/絶縁抵抗(MΩ)                    | 10000 (min.)  |    |  |  |  |
| 8.Humidity Load/ 耐湿負荷                    | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.75pF (within)  |    |  |  |  |
|  | Q                              | 103 (min.)  |    |  |  |  |
|  | IR/絶縁抵抗(MΩ)                    | 500 (min.)  |    |  |  |  |
| 9.High Temperature Load/ 高温負荷            | Appearance/外観                  | No defects / 著しい異常はありません。   | OK |  |  |  |
|  | Capacitance Change/ 静電容量変化(pF) | ±0.3pF (within)   |    |  |  |  |
|  | Q                              | 210 (min.)  |    |  |  |  |
|  | IR/絶縁抵抗(MΩ)                    | 1000 (min.)   |    |  |  |  |