

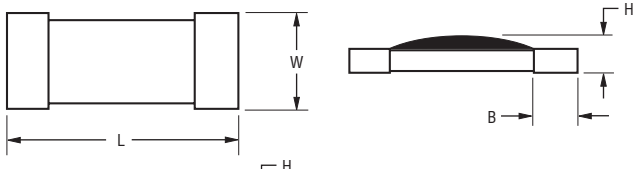
Applications

- Camera links
- Sensors
- Touchscreen interfaces
- GPS
- Antennas
- USB 3.0
- High-speed communications buses

CG0603MLC-05E & -12E - ChipGuard® ESD Protectors

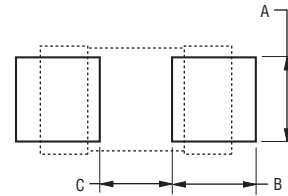
BOURNS®

Product Dimensions



| Dim. | CG0603MLC Series |
|------|---|
| L | $\frac{1.60 \pm 0.10}{(0.064 \pm 0.004)}$ |
| W | $\frac{0.85 \pm 0.15}{(0.033 \pm 0.006)}$ |
| H | $\frac{0.51 \pm 0.05}{(0.020 \pm 0.002)}$ |
| B | $\frac{0.30 \pm 0.20}{(0.012 \pm 0.008)}$ |

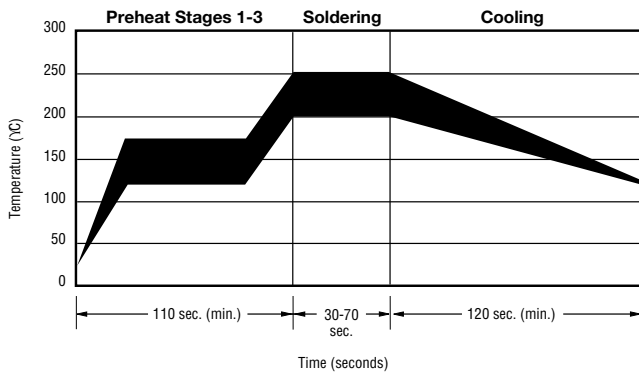
Recommended Pad Layout



| Dim. | CG0603MLC Series |
|------|---|
| A | $\frac{0.75 \pm 0.1}{(0.03 \pm 0.004)}$ |
| B | $\frac{0.75 \pm 0.1}{(0.03 \pm 0.004)}$ |
| C | $\frac{0.75 \pm 0.1}{(0.03 \pm 0.004)}$ |

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Solder Reflow Recommendations



| | | | |
|---|-----------------|--|---|
| A | Stage 1 Preheat | Ambient to Preheating Temperature | 30 s to 60 s |
| B | Stage 2 Preheat | 140 °C to 160 °C | 60 s to 120 s |
| C | Stage 3 Preheat | Preheat to 200 °C | 20 s to 40 s |
| D | Main Heating | 200 °C 210 °C 220 °C 230 °C 240 °C 250 °C to 255 °C | 60 s to 70 s 55 s to 65 s 50 s to 60 s 40 s to 50 s 30 s to 40 s 5 s |
| E | Cooling | 200 °C to 100 °C | 1 °C/s to 4 °C/s |

- This product can be damaged by rapid heating, cooling or localized heating.
- Heat shocks should be avoided. Preheating and gradual cooling recommended.
- Excessive solder can damage the device. Print solder thickness of 150 to 200 um recommended.
- Solder gun tip temperature should be kept below 280 °C and should not touch the device directly. Contact should be less than 3 seconds. A solder gun under 30 watts is recommended.

Specifications are subject to change without notice.

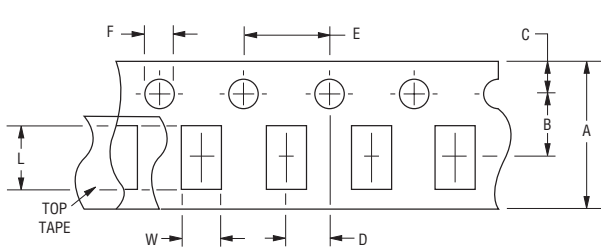
Users should verify actual device performance in their specific applications.

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CG0603MLC-05E & -12E - ChipGuard® ESD Protectors

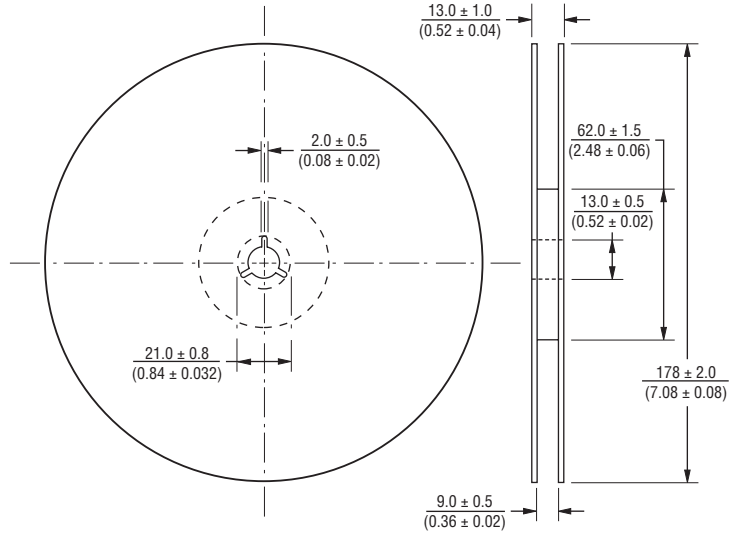
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Packaging Dimensions



NOTES: TAPE MATERIAL IS PAPER.
 TAPE THICKNESS IS: $\frac{0.6 \pm 0.03}{(0.024 \pm 0.0012)}$
 COVER TAPE ADHESION IS 35 ± 25 GRAMS.

DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$



| Dimension | CG0603MLC Series |
|-----------|--|
| A | $\frac{8.00 \pm 0.30}{(0.315 \pm 0.012)}$ |
| B | $\frac{3.50 \pm 0.05}{(0.138 \pm 0.002)}$ |
| C | $\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$ |
| D | $\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$ |
| E | $\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$ |
| F | $\frac{1.50 \pm 0.10}{(0.059 \pm 0.004)}$ |
| L | $\frac{2.02 \pm 0.20}{(0.080 \pm 0.008)}$ |
| W | $\frac{1.27 \pm 0.15}{(0.050 \pm 0.006)}$ |
| T | $\frac{0.60 \pm 0.03}{(0.024 \pm 0.0012)}$ |

How to Order

CG 0603 MLC - nn E

ChipGuard®
 Product Designator
 Package Option
 0603 = 0603 Package
 Multilayer Series Designator
 Maximum DC Working Voltage
 05 = 5 V
 12 = 12 V
 Tape & Reel Packaging
 E = 5,000 pcs. per reel

REV. E 07/20

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 Users should verify actual device performance in their specific applications.
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