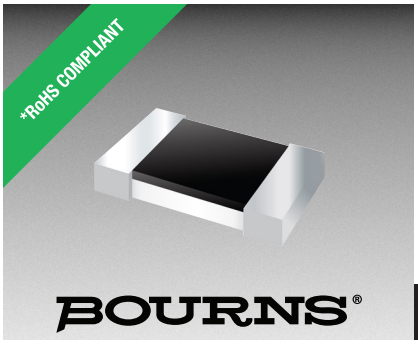


Features

- ESD protection to IEC 61000-4-2 Level 4
- Extremely quick response time (<1 ns)
- Low capacitance (0.05 pF typ.)
- RoHS* compliant

Applications

- Antenna circuits
- USB 3.2 Gen 1 and Gen 2
- HDMI 1.3/1.4/2.0
- SATA and eSATA Interface
- SIM card ports
- Memory protection

ChipGuard® CG0201MLU Series – ESD Protectors

General Information

The ChipGuard® Model CG0201MLU Series has been specifically designed to protect sensitive electronic components from electrostatic discharge damage. This series is suitable for protecting equipment to IEC 61000-4-2, Level 4 (±8 kV Contact / ±15 kV Air Discharge) ESD specifications targeted for high speed USB 3.2, HDMI 1.4/2.0 applications and antenna circuits.

The ChipGuard® MLU Series provides low capacitance (0.05 pF), and leakage currents less than 10 nA with excellent clamping qualities, making the components almost transparent under normal working conditions.

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

Device Symbol



Electrical Characteristics @ 25 °C (unless otherwise noted)

Parameter	Symbol	CG0201MLU					Unit
		06H	12H	15H	24H	30H	
Rated Voltage (Max.)	V_{DC}	6	12	15	24	30	V
Typical Clamping Voltage (Note 1)	V_C	20					V
Typical Capacitance @ 1 MHz	C_O	0.05					pF
Typical Leakage Current @ Max. VDC	I_L	10					nA
Typical Trigger Voltage (Note 1)	V_T	300					V
Maximum Response Time	R_T	1					ns
ESD Protection per IEC 61000-4-2: Min. Contact Discharge (>1000 Reps) Min. Air Discharge (>1000 Reps)		 ±8 ±15					 kV kV
Operating Temperature	T_{OPR}	-40 to +85					°C
Storage Temperature	T_{STG}	-40 to +85					°C

Note: 1. V_T and V_C measured using TLP (Transmission Line Pulse) method.

How To Order

CG 0n0n MLU - nn x

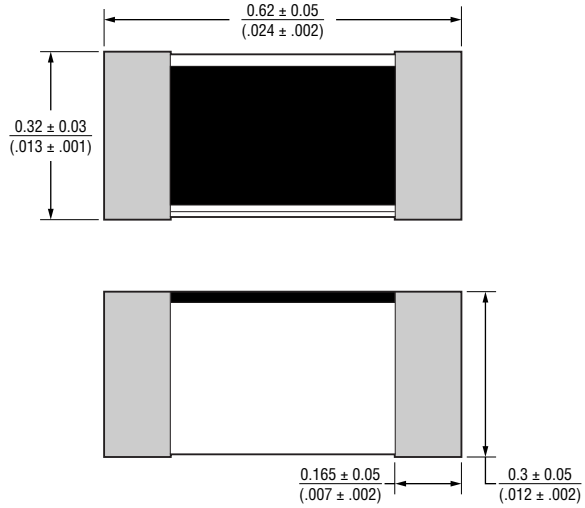
- ChipGuard® Product Designator
- Package Option
  - 0201 = 0201 Package
- Series Designator
- Rated Voltage
  - 06 = 6 V
  - 12 = 12 V
  - 15 = 15 V
  - 24 = 24 V
  - 30 = 30 V
- Tape & Peel Packaging
  - H = 15,000 pcs. per 7-inch Reel

WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

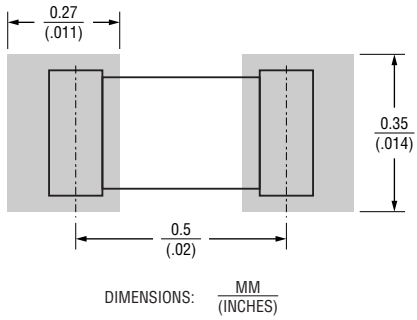
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
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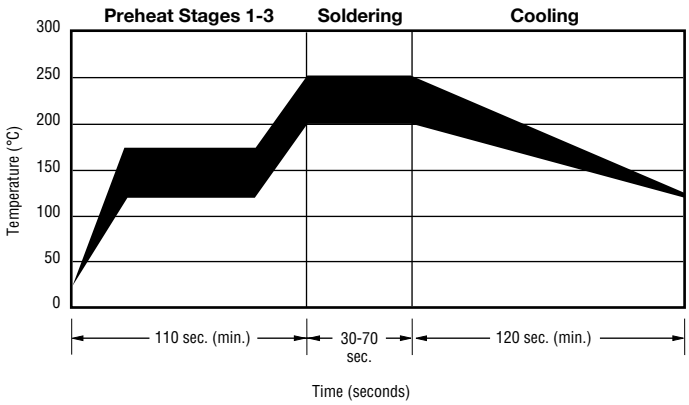
Product Dimensions



Recommended Pad Layout



Solder Reflow Recommendations



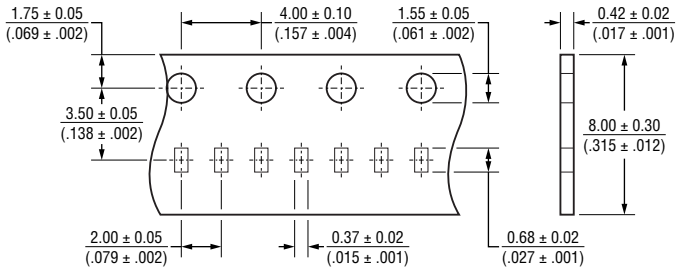
A	Stage 1 Preheat	Ambient to Preheating Temperature	30 s to 60 s
B	Stage 2 Preheat	140 °C to 160 °C	60 s to 120 s
C	Stage 3 Preheat	Preheat to 200 °C	20 s to 40 s
D	Main Heating	200 °C 210 °C 220 °C 230 °C 240 °C	60 s to 70 s 55 s to 65 s 50 s to 60 s 40 s to 50 s 30 s to 40 s
E	Cooling	200 °C to 100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

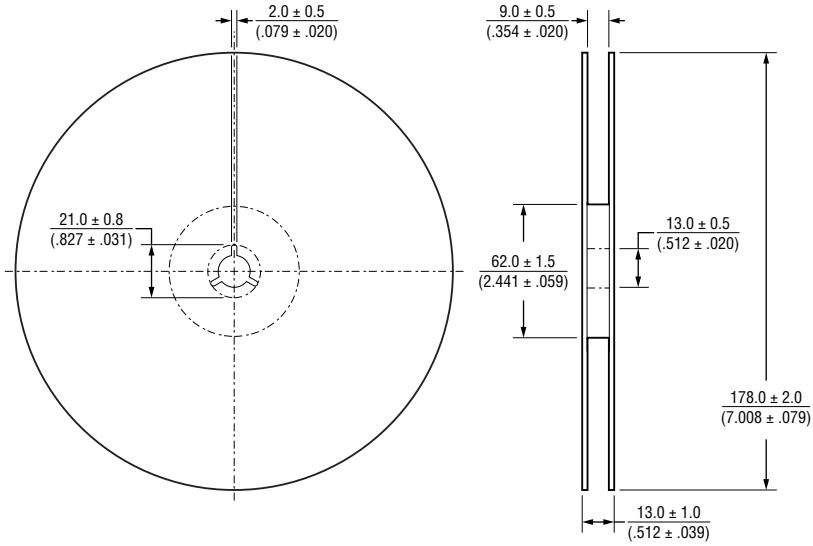
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Packaging Dimensions



DIMENSIONS: MM / (INCHES)



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