

NEW PRODUCT BRIEF

Model CG0201MLU Series ChipGuard® ESD Suppressor

INTRODUCTION

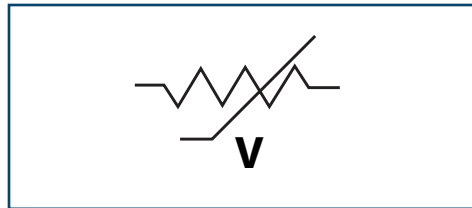
Bourns® Model CG0201MLU ChipGuard® ESD Suppressor is an ultra-low capacitance single channel ESD protector designed to safeguard sensitive electronics from damage caused by electrostatic discharges. It offers a highly reliable protection solution that meets IEC 61000-4-2, Level 4 (± 8 kV contact/ ± 15 kV air discharge) ESD specifications which are particularly important in high speed USB 3.2, HDMI 1.4/2.0 and antenna circuit applications.

Available in the very compact, industry-standard 0201 package, this new series meets the space-constrained requirements of wearable/handheld device and mobile phone designs.

FEATURES

- ESD protection to IEC 61000-4-2 Level 4
- Extremely quick response time (<1 ns)
- Low capacitance (0.05 pF typical)
- Miniature 0201 package
- Bidirectional protection
- Low clamping voltage
- Low leakage current
- RoHS compliant*

CIRCUIT DIAGRAM



APPLICATIONS

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

BENEFITS

- **Robust ESD Protection:** Effectively guards against ESD voltages and currents, offering reliable protection against potentially damaging electrostatic discharge events, up to rated limits.
- **Signal Integrity Preservation:** With ultra-low capacitance and zero signal distortion, the Model CG0201MLU Series maintains data signal integrity in high-speed transmission lines, ensuring data quality.
- **Swift Response/Low Leakage Current:** Advanced features enhance circuit protection by quickly diverting excess energy while minimizing power consumption and interference.

HOW TO ORDER

ChipGuard® _____ **CG 0n0n MLU - nn x**

Product Designator _____

Package _____

0201 = 0201 Package

Series Designator _____

Max. DC Working Voltage _____

06 = 6 V

12 = 12 V

15 = 15 V

24 = 24 V

30 = 30 V

Tape & Reel Packaging _____

H = 15,000 pcs. per 7-inch reel

MORE INFORMATION

- [High Energy MOVs](#)
- [High Current GDTs](#)
- [Power TVS \(PTVS\) Diodes](#)

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.



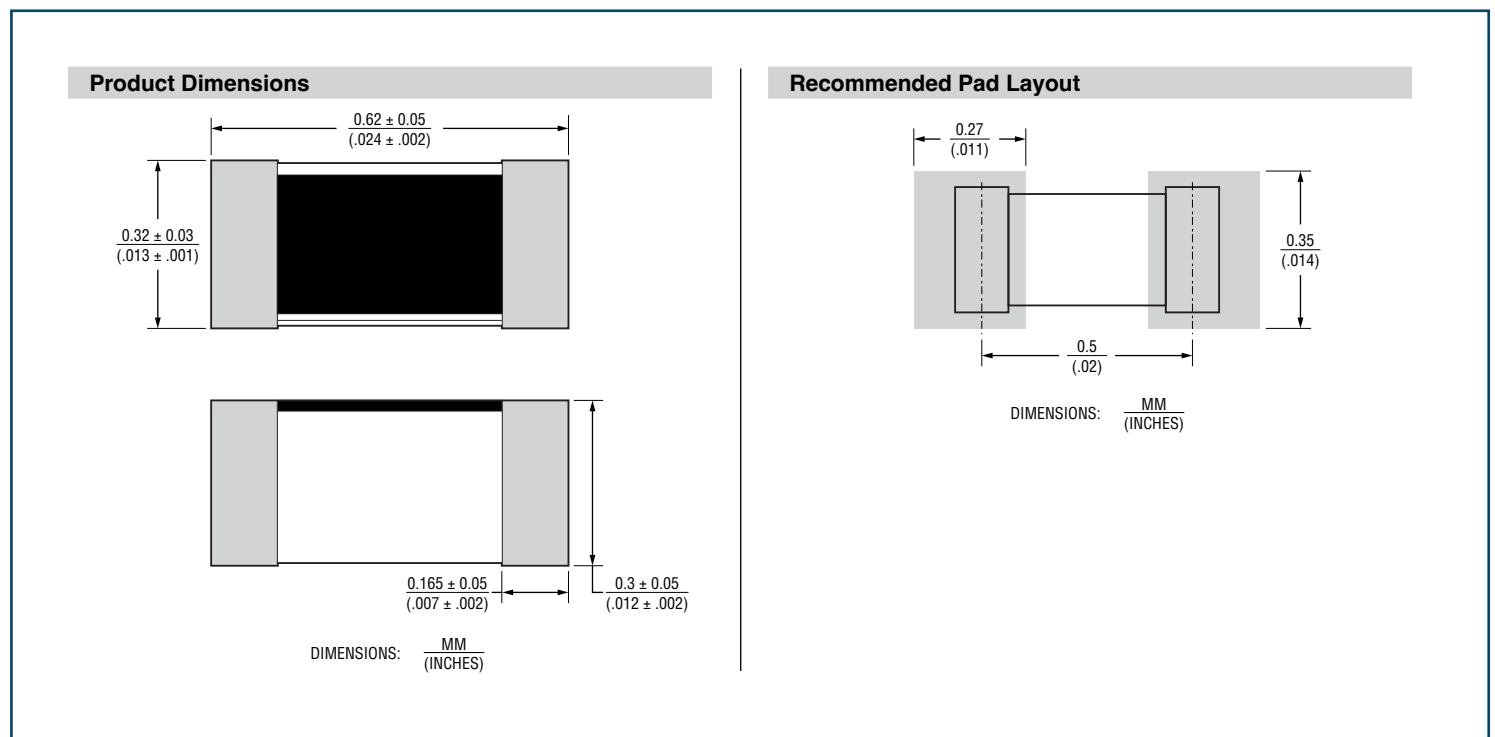
Model CG0201MLU Series ChipGuard® ESD Suppressor

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 Repts) Min. Air Discharge (>1000 Repts)		±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.

PRODUCT DIMENSIONS AND RECOMMENDED PAD LAYOUT



www.bourns.com

Americas: Tel +1-951 781-5500
Email americus@bourns.com

EMEA: Tel +36 88 885 877
Email eurocus@bourns.com

BOURNS®

Asia-Pacific: Tel +886-2 256 241 17
Email asiacus@bourns.com

COPYRIGHT © 2023 • BOURNS, INC. • 09/23 • e/KV2314
"Bourns" and "Chipguard" are registered trademarks of Bourns, Inc. in the U.S. and other countries.