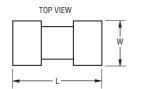
# ChipGuard® Automotive MLA Series Varistor ESD Clamp Protectors

# BOURN

### **Product Dimensions**

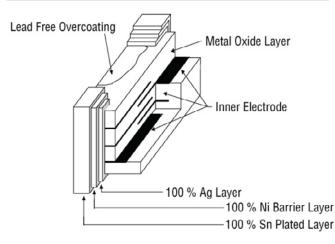


SIDE VIEW C .

#### MM DIMENSIONS: (INCHES)

Dim.	CGA0603MLA Series	CGA0805MLA Series	CGA1206MLA Series
L	$\frac{1.60 \pm 0.15}{(0.063 \pm 0.006)}$	$\frac{2.00 \pm 0.20}{(0.079 \pm 0.008)}$	$\frac{3.20 \pm 0.30}{(0.126 \pm 0.012)}$
w	$\frac{0.80 \pm 0.10}{(0.031 \pm 0.004)}$	$\frac{1.25 \pm 0.20}{(0.049 \pm 0.008)}$	$\frac{1.60 \pm 0.20}{(0.063 \pm 0.008)}$
Т	$\frac{0.80 \pm 0.10}{(0.031 \pm 0.004)}$	$\frac{0.90 \pm 0.10}{(0.035 \pm 0.004)}$	<u>1.70</u> MAX.
С	$\frac{0.30 \pm 0.15}{(0.012 \pm 0.006)}$	$\frac{0.50 \pm 0.25}{(0.020 \pm 0.010)}$	$\frac{0.50 \pm 0.25}{(0.020 \pm 0.010)}$

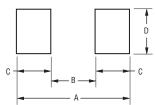
#### Construction



E	Environmental	Characteristics	
Mo	isture Sensitivi	ty I evel	

ESD Classification (HBM)3B	

### **Recommended Pad Layout**



Note: Print solder to a recommended thickness of 150 to 200  $\mu$ m.

Dim.	CGA0603MLA	CGA0805MLA	CGA1206MLA
	Series	Series	Series
А	<u>2.54</u>	<u>3.50</u>	<u>4.06</u>
	(0.100)	(0.137)	(0.160)
В	<u>0.50</u>	<u>1.10</u>	<u>2.02</u>
	(0.020)	(0.043)	(0.080)
С	<u>1.02</u>	<u>1.20</u>	<u>1.02</u>
	(0.040)	(0.047)	(0.040)
D	<u>0.76</u>	<u>1.20</u>	<u>1.65</u>
	(0.030)	(0.047)	(0.065)

#### How to Order

	CG A x>	Ox MI	_A - x	х уу	/y E
ChipGuard® Product Designator					
Automotive Series					
Package Option 0603 = 1608 Package 0805 = 2012 Package 1206 = 3216 Package					
Multilayer Series Designator					
Maximum DC Working Voltage, V					
Capacitance, pF (Example: 151 = 15x10 <sup>1</sup> (150 pF)					
Tape & Reel Packaging —					

E = 4,000 pcs. per reel

Specifications are subject to change without notice.

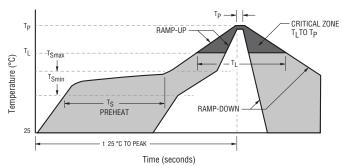
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### ChipGuard<sup>®</sup> Automotive MLA Series Varistor ESD Clamp Protectors

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#### **Solder Reflow Recommendations**

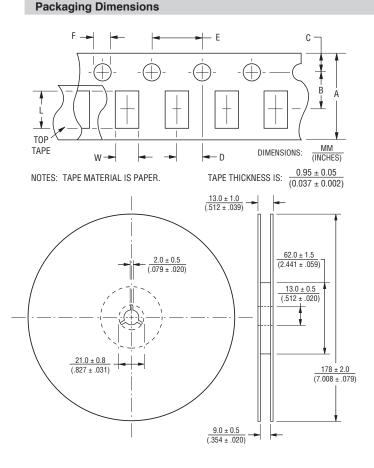


A	Stage 1 Preheat Ramp	Ambient to Preheating Temperature	3 °C / s max.
В	Stage 2 Preheat	Preheat min./max. Temperature Range	150 °C to 200 °C 60 s to 180 s
С	Stage 3 Preheat to Main Heating	Max. Time Above Stated Temperature	217 °C 60 s to 150 s
D	Main Heating	Max. Time Within 5 °C of Peak Temperature (260 °C)	255 °C 20 s to 40 s
E	Cool Down	Rate from Peak Temperature	6 °C / s max.

#### CAUTION:

· Rapid heating and cooling in excess of stated maximum rates will easily damage this product.

- Localized heating can also damage product.
- Do not thermally shock product in excess of 100 °C.
- · Use a 30 W or less solder gun/iron for product repairs. Tip temperature maximum is 280 °C for less than 3 seconds.
- Do not touch the component directly with the soldering gun/iron.
- Excess solder volumes can damage the body of the product.



Dim.	CGA0603MLA Series	CGA0805MLA Series	CGA1206MLA Series
А		$\frac{8.00 \pm 0.30}{(0.315 \pm 0.012)}$	•
В		$\frac{3.50 \pm 0.05}{(0.138 \pm 0.002)}$	
С	$\frac{1.75 \pm 0.10}{(0.069 \pm 0.004)}$		
D		$\frac{2.00 \pm 0.05}{(0.079 \pm 0.002)}$	
Е		$\frac{4.00 \pm 0.10}{(0.157 \pm 0.004)}$	
F		$\frac{1.50 \pm 0.10}{(0.059 \pm 0.004)}$	
L	$\frac{1.90 \pm 0.15}{(0.075 \pm 0.006)}$	$\frac{2.30 \pm 0.15}{(0.091 \pm 0.006)}$	$\frac{3.50 \pm 0.15}{(0.138 \pm 0.006)}$
W	$\frac{1.05 \pm 0.15}{(0.041 \pm 0.006)}$	$\frac{1.55 \pm 0.15}{(0.061 \pm 0.006)}$	$\frac{1.90 \pm 0.15}{(0.075 \pm 0.006)}$

#### REV. D 07/20

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 CGA0805MLA-16401E
 CGA0603MLA-19161E
 CGA1206MLA 

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 CGA0603MLA-31900E
 CGA0603MLA-22161E
 CGA1206MLA-16801E
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