

PRODUCT SPECIFICATION

SPEC. NO: B-2512-04

DATE: 2025.12

CUSTOMER'S PRODUCT NAME:

EMTEK PRODUCT NAME:

BMLB321611121Y60

THIS SPECIFICATION IS:

- ☐ FULLY ACCEPTED
- ☐ DENIED
- ☐ ACCEPTED UNDER THE FOLLOWING CONDITIONS



SIGNATURE: _____ DATE: _____

NAME(PRINT): _____

TITLE: _____

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EMTEK CO., LTD.

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1. Features

- Noise suppression for high speed signal or power line of electric equipments.
- Internal silver printed layers and magnetic shielded structures to minimize crosstalk.
- High impedance values for various application.
- Excellent solderability and heat resistance for reflow soldering.

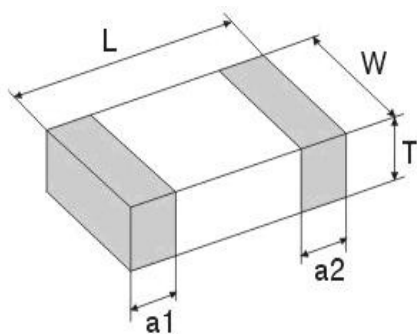
2. Application

- Cellular Handsets and Accessories.
- Notebooks and Digital Cameras.
- Portable Instrumentation.
- Communication equipments.

3. Part numbering

B	-	MLB	-	321611	-	121	-	Y	-	60
Grade		Product Series		Dimensions(mm)		Impedance (Ω)		Tolerance		Control code

4. Appearance and Dimensions



Type 型号	Dimensions (mm) [inch]			
	L长	W宽	T高	a1, a2
1608	1.60±0.15 [0.063±0.006]	0.80±0.15 [0.031±0.006]	0.80±0.15 [0.031±0.006]	0.30±0.20 [0.012±0.008]
2012	2.00 (+0.30, -0.10) [0.079 (+0.012, -0.04)]	1.25±0.2 [0.049±0.008]	0.85±0.2 [0.033±0.008]	0.5±0.3 [0.020±0.012]
3216	3.20±0.20 [0.126±0.008]	1.60±0.20 [0.063±0.008]	0.85±0.20 [0.033±0.008]	0.50±0.30 [0.02±0.012]
3216	3.20±0.20 [0.126±0.008]	1.60±0.20 [0.063±0.008]	1.10±0.20 [0.043±0.008]	0.50±0.30 [0.02±0.012]

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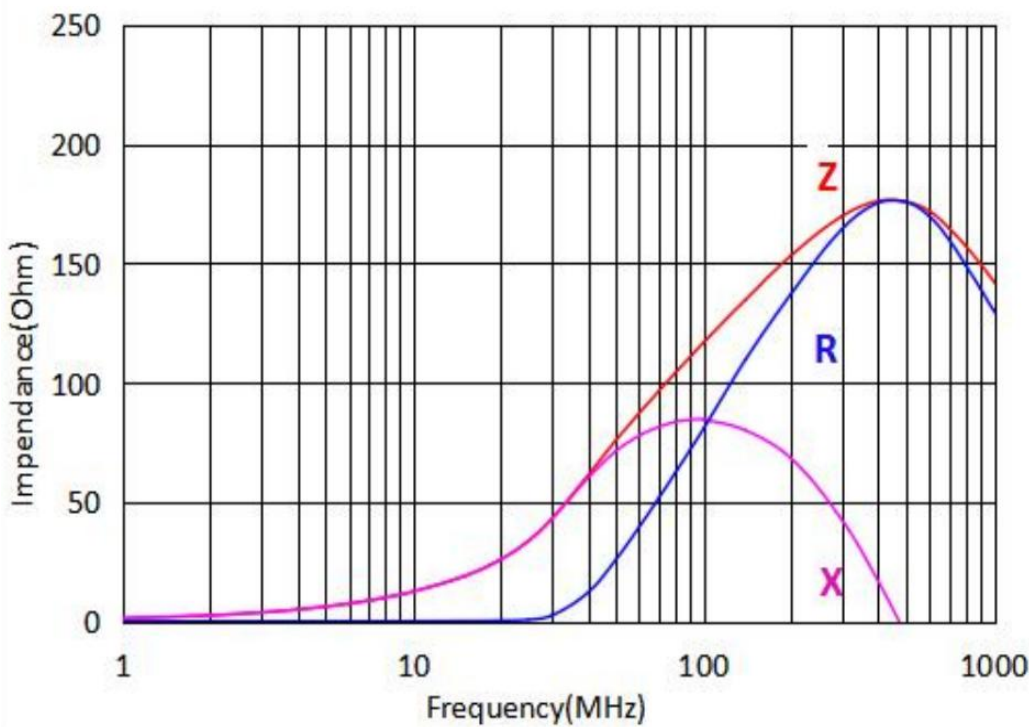
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5. Rating

Operating Temperature Range : -55 to +125℃

Part No. 型号	Impedance 阻抗(±25%)	Test Freq. 测试频率	Max. DC Resistance 直流电阻	Max. Rated Current 额定电流	Thickness 厚度
Units 单位	Ω	MHz	Ω	mA	mm [inch]
Symbol 符号	Z	Freq.	DCR	Ir	T
BMLB321611121Y60	120	100	0.013	6000	0.85±0.20 [0.033±0.008]

Typical Eleectrical Characteristics

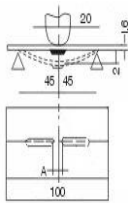
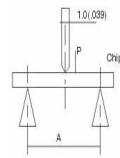
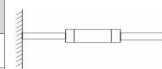


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6. Reliable Performance

NO.	Item	Specifications	Test Methods																		
1	Solder- Ability	More than 90% of termination should be covered with new solder.	Solder : Sn Temperature : 260°C± 5 °C Flux :rosin Duration : 4±1s																		
2	Leaching Resistance	More than 75% of termination Should be covered with new solder.	Solder : Sn Temperature : 260°C± 5 °C Flux : rosin Duration : 10±1s																		
3	Bending Strength	No mechanical damage should be noticed	When the board curve to 2mm(0.079 inches) 当板弯曲挠度达 2mm 时: <table><tr><th>Size</th><th>A(mm)</th></tr><tr><td>0603</td><td>0.3</td></tr><tr><td>1005</td><td>0.5</td></tr><tr><td>1608</td><td>0.7</td></tr><tr><td>2012</td><td>1.0</td></tr><tr><td>3216</td><td>1.0</td></tr></table> 	Size	A(mm)	0603	0.3	1005	0.5	1608	0.7	2012	1.0	3216	1.0						
Size	A(mm)																				
0603	0.3																				
1005	0.5																				
1608	0.7																				
2012	1.0																				
3216	1.0																				
4	Body Strength	No mechanical damage should be noticed	Applied specified pull strength in axial direction 在轴向上施加拉力如下: <table><tr><th>Size</th><th>A/mm</th><th>P/N</th></tr><tr><td>0603</td><td>0.3</td><td>4.9</td></tr><tr><td>1005</td><td>0.7</td><td>4.9</td></tr><tr><td>1608</td><td>1.0</td><td>4.9</td></tr><tr><td>2012</td><td>1.4</td><td>9.8</td></tr><tr><td>3216</td><td>1.4</td><td>9.8</td></tr></table> 	Size	A/mm	P/N	0603	0.3	4.9	1005	0.7	4.9	1608	1.0	4.9	2012	1.4	9.8	3216	1.4	9.8
Size	A/mm	P/N																			
0603	0.3	4.9																			
1005	0.7	4.9																			
1608	1.0	4.9																			
2012	1.4	9.8																			
3216	1.4	9.8																			
5	Terminal Strength	The terminal and body should be no damage	Applied specified pull strength in axial 在轴向上施加拉力如下: <table><tr><th>Size</th><th>Pull Strength</th><th>Time (s)</th></tr><tr><td>0603</td><td>2N</td><td>5±1</td></tr><tr><td>1005</td><td>3N</td><td>5±1</td></tr><tr><td>1608</td><td>5N</td><td>5±1</td></tr><tr><td>2012</td><td>10N</td><td>5±1</td></tr><tr><td>3216</td><td>10N</td><td>5±1</td></tr></table> 	Size	Pull Strength	Time (s)	0603	2N	5±1	1005	3N	5±1	1608	5N	5±1	2012	10N	5±1	3216	10N	5±1
Size	Pull Strength	Time (s)																			
0603	2N	5±1																			
1005	3N	5±1																			
1608	5N	5±1																			
2012	10N	5±1																			
3216	10N	5±1																			



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NO.	Item	Specifications	Test Methods
6	Drop	1.No mechanical damage shall be noticed 2.Impedance change : Within $\pm$ 20%	Drop 10 times on a concrete floor from a height of 1m.
7	Vibration		Frequency : 10 to 55Hz Amplitude : 1.52mm Direction and time : X, Y and Z directions for 2 hours each.
8	Humidity resistance		a.Test condition Temp.: 60 $\pm$ 2 $^{\circ}$ C Humidity : 90%~95% Test time : 1000 h b.Measurement method : The component should be stabilized at normal condition for 24 hours before test.
9	High temperature resistance		a.Test condition Applied rated current Temp. : 125 $\pm$ 2 $^{\circ}$ C Test time : 1000 h b.Measurement method : The component should be stabilized at normal condition for 24 hours before test.
10	Low temperature resistance		a.Test condition Temp. : -55 $\pm$ 2 $^{\circ}$ C Test time : 1000 h b.Measurement method: The component should be stabilized at normal condition for 24 hours before test.
11	Thermal shock		a.Test condition 1)Temp. : -55 $^{\circ}$ C, time : 30 $\pm$ 3min 2)Temp. : +125 $^{\circ}$ C, time : 30 $\pm$ 3min 100 cycles b.Measurement method : The component should be stabilized at normal condition for 24 hours before test.



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7.Recommended Soldering Conditions

Product can be applied to flow and reflow soldering.

(1) Flux, Solder

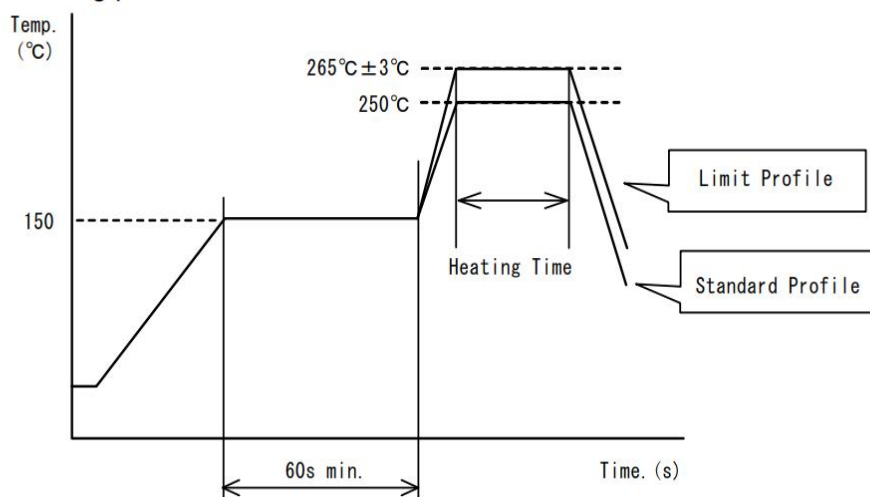
① Use rosin-based flux. Don't use highly acidic flux with halide content exceeding 0.2wt% (chlorine conversion value).

② Use Sn solder.

(2)Flow soldering conditions

① During preheating, the maximum temperature difference between the product surface temperature and the solder temperature is not allowed to exceed 150 °C. After welding and cooling, the maximum temperature difference between the product surface temperature and the solvent temperature is not allowed to exceed 100 °C. Insufficient preheating may cause surface cracks on the product, leading to a decrease in product quality.

□Flow soldering profile



	Standard Profile	Limit Profile
Pre-heating	150°C、60s min.	
Heating	250°C、4~6s	265°C±3°C、5s max.
Cycle of flow	2 times	2 times



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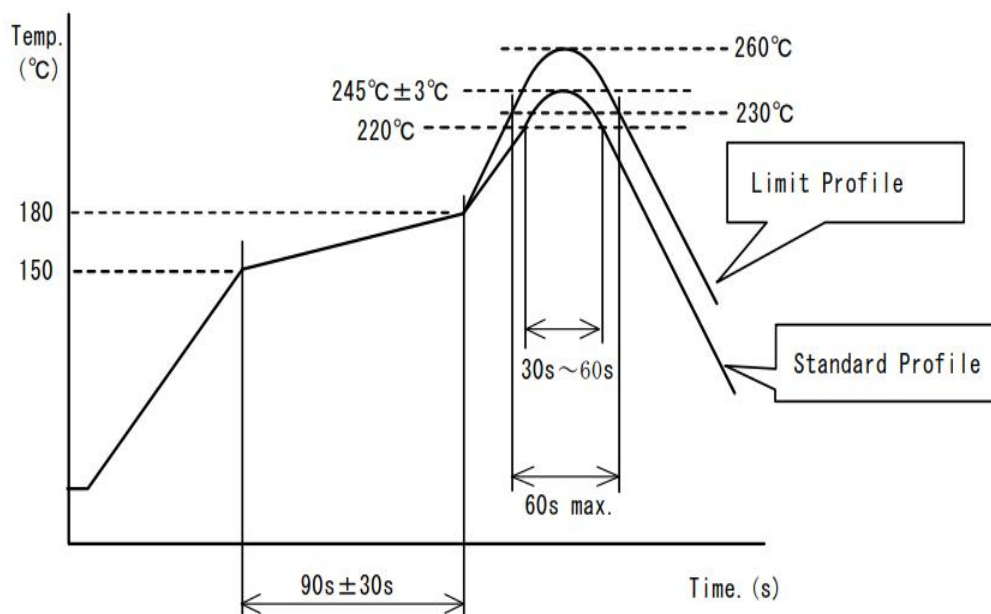
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(3) Reflow soldering conditions

Standard soldering profile

□ Reflow soldering profile



	Standard Profile	Limit Profile
Pre-heating	150~180°C 、 90s±30s	
Heating	above 220°C、 30s~60s	above 230°C、 60s max.
Peak temperature	245±3°C	260°C,10s
Cycle of reflow	2 times	2 times



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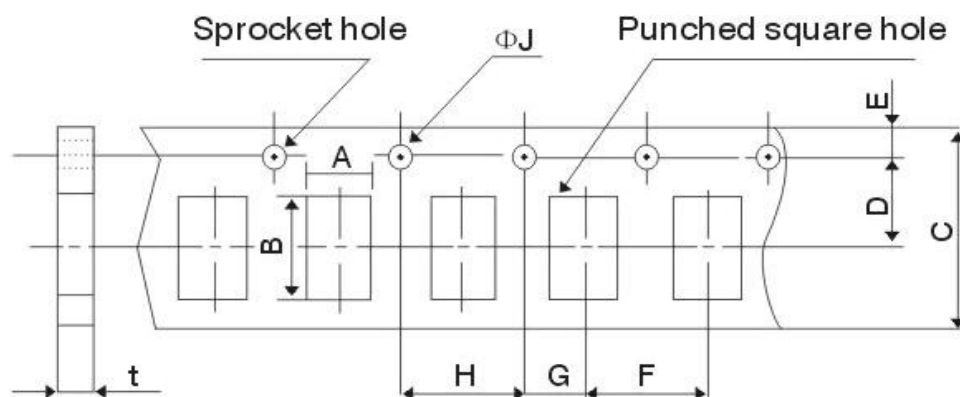
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8.Packaging

(1) Dimensions of Tape:

(2) Paper / Embossed carrier tape:



Type	3216		2012		1608
T*	0.85±0.20	1.1±0.30	0.85±0.20	1.25±0.20	0.80±0.15
TAPE	Paper carrier tape	Embossed carrier tape	Paper carrier tape	Embossed carrier tape	Paper carrier tape
A	1.8±0.1	1.88±0.1	1.5±0.1	1.40±0.10	1.05±0.10
B	3.48±0.1	3.50±0.1	2.35±0.1	2.25±0.10	1.85±0.10
C	8.0±0.3	8.0±0.3	8.0±0.3	8.0±0.30	8.0±0.3
D	3.5±0.05	3.5±0.05	3.5±0.05	3.5±0.05	3.5±0.05
E	1.75±0.1	1.75±0.1	1.75±0.1	1.75±0.1	1.75±0.1
F	4.0±0.1	4.0±0.1	4.0±0.1	4.0±0.1	4.0±0.1
G	2.0±0.05	2.0±0.05	2.0±0.05	2.0±0.05	2.0±0.05
H	4.0±0.1	4.0±0.1	4.0±0.1	4.0±0.1	4.0±0.1
ΦJ	1.5±0.1	1.5±0.1	1.5±0.1	1.5±0.1	1.5±0.1
t(max)	0.95±0.05	1.27±0.05	0.95±0.05	1.4±0.05	0.95±0.05

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(2) Packaging quantities

型号 Type	产品厚度 Thickness(mm)	数量 Quantities (Pcs/Reel)	包装载带 (material)
1608	0.80±0.15	4000	纸质载带 Paper
2012	0.85±0.20	4000	纸质载带 Paper
	1.25±0.20	3000	塑料载带 Plastic
3216	0.85±0.20	4000	纸质载带 Paper
	1.10±0.20	3000	塑料载带 Plastic

9.Storage

(1) Storage period

Use the products within 6 months after delivered. Solderability should be checked if this period is exceeded.

(2) Storage conditions

① Products should be storage in the warehouse on the following conditions

Temperature: $\leq 40^{\circ}\text{C}$

Humidity: $\leq 70\%$ relative humidity

No rapid change on temperature and humidity

② Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of electrode, resulting in poor solder ability.

③ Products should be storage on the palette for the prevention of the influence from humidity, dust and so on.

④ Products should be storage in the warehouse without heat shock, vibration, direct sunlight and so on.

⑤ Products should be storage under the airtight packaged condition.

(3) Delivery

Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.



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