

Type BMB-P Series

Key Features

Effective EMI Protection

Low DC Resistance

High Current Handling

Various Package Sizes Available

Inorganic Material Construction

Suited to Noise Filtering applications

Terminal finish matte Sn over Cu/Ni underplate



The P Series of multilayer beads is suitable for use in high current circuits due to its low dc resistance. It can match power lines to a maximum of 6 amps. The P series is available in 0402, 0603, 0805 and 1206 package sizes

Electrical Performance

| Part Number | Impedance (Ω) at 100MHz | DC Resistance (Ω) maximum | Rated Current (mA) maximum |
|-----------------|----------------------------------|------------------------------------|----------------------------|
| BMB-1E-0010P-N8 | 10 \pm 25% | 0.05 | 1000 |
| BMB-1E-0120P-N8 | 120 \pm 25% | 0.095 | 1500 |
| BMB-1E-0220P-N8 | 220 \pm 25% | 0.28 | 700 |
| | | | |
| BMB-1J-0010P-N8 | 10 \pm 25% | 0.01 | 5000 |
| BMB-1J-0025P-N8 | 25 \pm 25% | 0.03 | 3000 |
| BMB-1J-0030P-N8 | 30 \pm 25% | | |
| BMB-1J-0060P-N8 | 60 \pm 25% | 0.04 | 2500 |
| BMB-1J-0120P-N8 | 120 \pm 25% | 0.05 | |
| BMB-1J-0150P-N8 | 150 \pm 25% | 0.10 | 2000 |
| BMB-1J-0220P-N8 | 220 \pm 25% | | |
| BMB-1J-0300P-N8 | 300 \pm 25% | | |
| BMB-1J-0470P-N8 | 470 \pm 25% | 0.15 | 1500 |
| BMB-1J-0600P-N8 | 600 \pm 25% | 0.20 | |
| | | | |
| BMB-2A-0010P-N8 | 10 \pm 25% | 0.01 | 6000 |
| BMB-2A-0020P-N8 | 20 \pm 25% | 0.03 | 4000 |
| BMB-2A-0030P-N8 | 30 \pm 25% | 0.015 | 3000 |
| BMB-2A-0060P-N8 | 60 \pm 25% | 0.025 | |
| BMB-2A-0080P-N8 | 80 \pm 25% | 0.04 | 5000 |
| BMB-2A-0120P-N8 | 120 \pm 25% | | 3000 |
| BMB-2A-0150P-N8 | 150 \pm 25% | | |
| BMB-2A-0220P-N8 | 220 \pm 25% | | |
| BMB-2A-0300P-N8 | 300 \pm 25% | 0.07 | 2000 |
| BMB-2A-0470P-N8 | 470 \pm 25% | 0.1 | |
| BMB-2A-0600P-N8 | 600 \pm 25% | | |

Electrical Performance (continued)

| Part Number | Impedance (Ω) at 100MHz * 50MHz * 30MHz | DC Resistance (Ω) maximum | Rated Current (mA) maximum |
|-----------------|---|---------------------------------------|-------------------------------|
| BMB-2B-0030P-N8 | 30 \pm 25 | 0.03 | 4000 |
| BMB-2B-0050P-N8 | 50 \pm 25 | | |
| BMB-2B-0080P-N8 | 80 \pm 25 | | |
| BMB-2B-0120P-N8 | 120 \pm 25 | 0.04 | 3000 |
| BMB-2B-0300P-N8 | 300 \pm 25 | 0.06 | 2500 |
| BMB-2B-0500P-N8 | 500 \pm 25 | 0.07 | 2000 |

Operating temperature range - -55 ~ +125°C

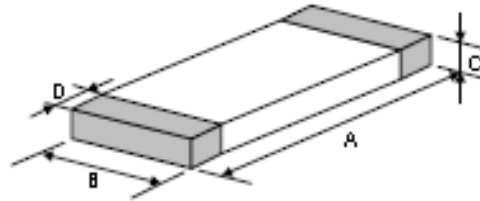
Temperature should be less than 40°C when rated current is applied.

Storage:

Temperature Range: -40 ~ +85°C

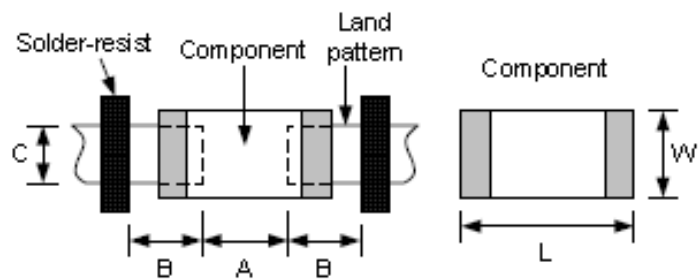
Humidity: Less than 75% RH

Product Dimensions



| Size | A (mm) | B (mm) | C (mm) | D (mm) |
|------|-----------|-----------|-----------|------------|
| 0402 | 1.0 ±0.10 | 0.5 ±0.10 | 0.5 ±0.10 | 0.25 ±0.10 |
| 0603 | 1.6 ±0.15 | 0.8 ±0.15 | 0.8 ±0.15 | 0.3 ±0.20 |
| 0805 | 2.0 ±0.20 | 1.2 ±0.20 | 0.9 ±0.20 | 0.5 ±0.30 |
| 1206 | 3.2 ±0.20 | 1.6 ±0.20 | 1.1 ±0.20 | 0.5 ±0.30 |

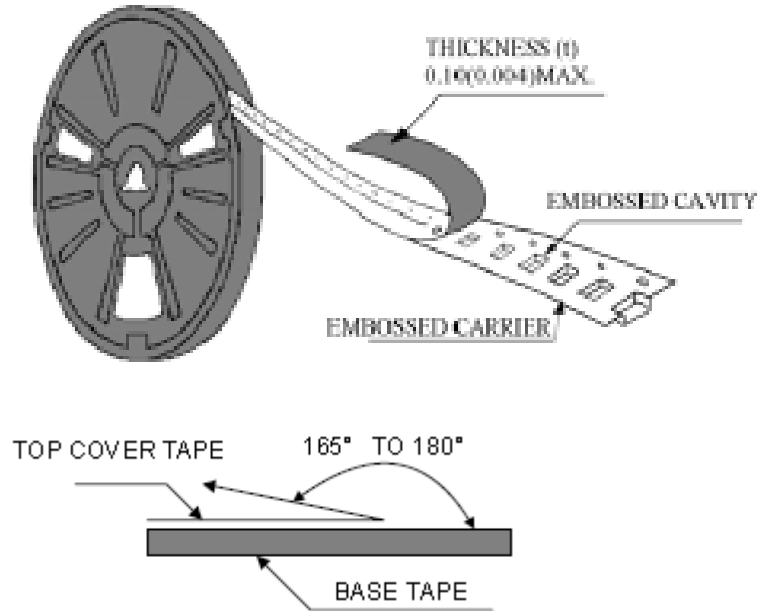
Recommended PCB Layout



| Size | 0402 | 0603 | 0805 | 1206 | |
|-----------|-------------|-----------|-----------|-----------|-----|
| Component | L | 1.0 | 1.6 | 2.0 | 3.2 |
| | W | 0.5 | 0.8 | 1.2 | 1.6 |
| A | 0.45 ~ 0.55 | 0.6 ~ 0.8 | 0.8 ~ 1.2 | 1.8 ~ 2.2 | |
| B | 0.40 ~ 0.50 | 0.6 ~ 0.8 | 0.8 ~ 1.2 | 1.1 ~ 1.6 | |
| C | 0.40 ~ 0.50 | 0.6 ~ 0.8 | 0.9 ~ 1.6 | 0.9 ~ 1.6 | |

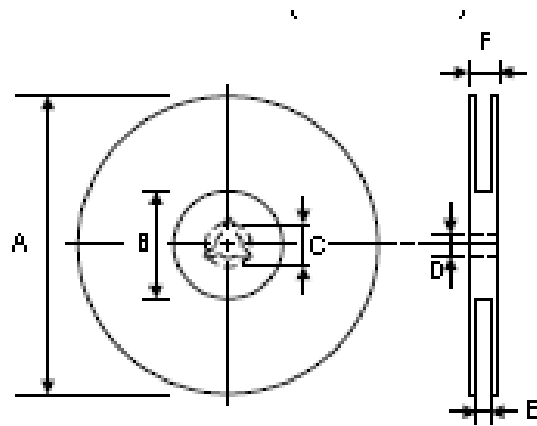
Packaging

Peel off force:

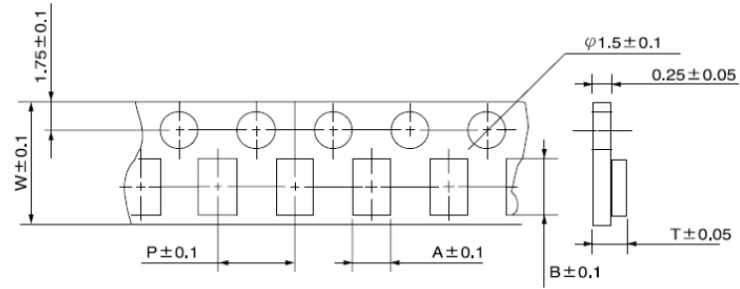


The force for peeling off cover tape is 10 grams in the direction shown

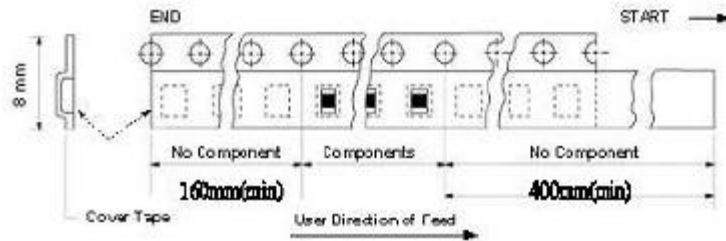
Dimensions (mm)



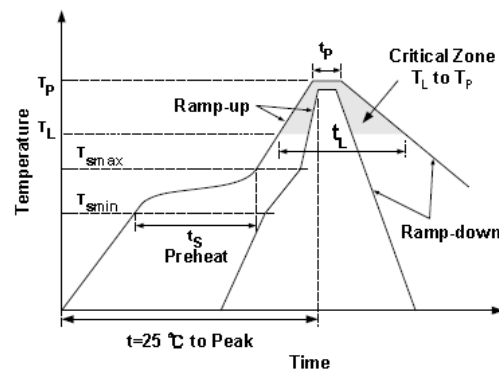
| A | B | C | D | E | F |
|--------|-----------------|----|---------|--------|---------|
| 178 ±1 | 60 +0.5 -0.1 | -- | 13 ±0.2 | 9 ±0.5 | 12 ±0.5 |



| Size | A | B | W | P | T | Chips / Reel |
|------|-----|-----|---|---|-----|--------------|
| 0402 | 0.6 | 1.1 | 8 | 2 | 1.0 | 10000 |
| 0603 | 1.1 | 1.9 | 8 | 4 | 1.1 | 4000 |
| 0805 | 1.5 | 2.3 | 8 | 4 | 1.3 | 4000 |
| 1206 | 1.9 | 3.5 | 8 | 4 | 1.5 | 3000 |



Recommended Reflow Solder Profile



| Profile Feature | | Pb Free |
|--|-----------------------|------------------|
| Preheat | t_s | 60 ~ 180 seconds |
| | T_{smin} | 150°C |
| | T_{smax} | 200°C |
| Average Ramp up rate (T_{smax} to T_p) | | 3°C/second max. |
| Time main above | Temperature (T_L) | 217°C |
| | Time (t_L) | 60 ~ 150 seconds |
| Peak Temperature (T_p) | | 250 ~ 260°C |
| Time within 5°C of actual peak temperature (t_p) | | 10 seconds |
| Ramp down rate | | 6°C/second max. |
| Time 25°C to peak temperature | | 8 minutes max. |

Typical Characteristic Curves (T=25°C)

