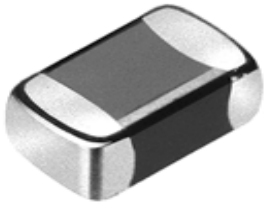




# Chilisin Electronics Singapore Pte Ltd

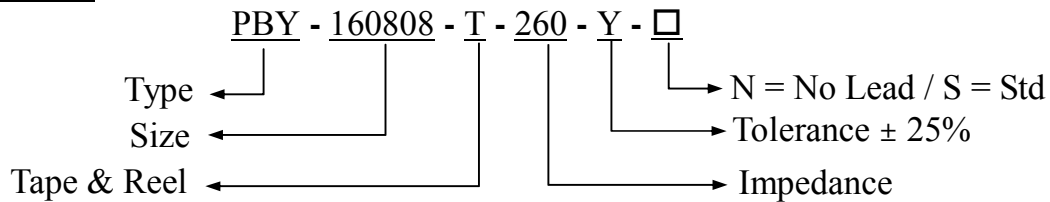
## High Current Chip Beads, PBX Series



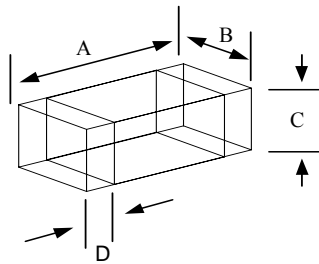
### Feature:

Our SMD High Current Chips Beads is specially designed to with Stand large Currents while providing a means of EMI/RFI attenuation for electronics products. Its has a full range different sizes to choose from.

### Ordering Code:



### Dimension in mm:



Type	A	B	C	D
PBX - 100505	1.0 ± 0.1	0.5 ± 0.1	0.5 ± 0.1	0.25 ± 0.1
PBX - 160808	1.6 ± 0.2	0.8 ± 0.15	0.8 ± 0.15	0.4 ± 0.2
PBX - 201209	2.0 ± 0.2	1.25 ± 0.2	0.9 ± 0.2	0.5 ± 0.3
PBX - 321611	3.2 ± 0.2	1.6 ± 0.2	0.6 ± 0.2	0.5 ± 0.3
PBX - 322513	3.2 ± 0.2	2.5 ± 0.2	1.3 ± 0.2	0.5 ± 0.3
PBX - 451616	4.5 ± 0.25	1.6 ± 0.2	1.6 ± 0.2	0.5 ± 0.3
PBX - 453215	4.5 ± 0.25	3.2 ± 0.2	1.5 ± 0.2	0.5 ± 0.3

### Electrical:

Part Number	Impedance	Current
PBX-100505- Series	10Ω	1000mA
PBX-160808 - Series	11 Ω to 1000 Ω	4000 mA to 800 mA
PBX-201209 - Series	11 Ω to 1500 Ω	6000 mA to 1500 mA
PBX-321611 - Series	19 Ω to 1500 Ω	6000 mA to 800 mA
PBX-322513 - Series	60 Ω TO 90 Ω	4000mA to 3000mA
PBX-451616 - Series	50 Ω to 150 Ω	6000 Ma to 2000 mA
PBX-453215 - Series	70 Ω to 600 Ω	6000 mA to 2000 mA



# Chilisin Electronics Singapore Pte Ltd

High Current Chip Beads, PBY Series



## Electrical Characteristics:

Part Number	Impedance ( ohm )	Test Frequency ( MHz )	DC Resistance ( ohms ) Max	Rated Current ( mA ) Max
PBY-100505-T-100Y-□	10 ± 25%	100	0.030Ω	1000
PBY-160808-T-110Y-□	11 ± 25%	100	0.020 Ω	4000
PBY-160808-T-250Y-□	25 ± 25%	100	0.030 Ω	3000
PBY-160808-T-400Y-□	40 ± 25%	100	0.035Ω	3000
PBY-160808-T-600Y-□	60 ± 25%	100	0.04 Ω	3000
PBY-160808-T-121Y-□	120 ± 25%	100	0.08 Ω	2500
PBY-160808-T-151Y-□	150 ± 25%	100	0.085 Ω	2000
PBY-160808-T-181Y-□	180 ± 25%	100	0.09 Ω	2000
PBY-160808-T-201Y-□	200 ± 25%	100	0.095 Ω	2000
PBY-160808-T-301Y-□	300 ± 25%	100	0.10 Ω	2000
PBY-160808-T-500Y-□	500 ± 25%	100	0.15 Ω	1500
PBY-160808-T-601Y-□	600 ± 25%	100	0.20 Ω	1000
PBY-160808-T-102Y-□	1000 ± 25%	100	0.25Ω	800
PBY-201209-T-110Y-□	11 ± 25%	100	0.010Ω	6000
PBY-201209-T-170Y-□	17 ± 25%	100	0.02 Ω	5000
PBY-201209-T-300Y-□	30 ± 25%	100	0.015Ω	5000
PBY-201209-T-500Y-□	50 ± 25%	100	0.025Ω	3000
PBY-201209-T-600Y-□	60 ± 25%	100	0.03Ω	3000
PBY-201209-T-800Y-□	80 ± 25%	100	0.040Ω	3000
PBY-201209-T-121Y-□	120 ± 25%	100	0.040Ω	3000
PBY-201209-T-201Y-□	200 ± 25%	100	0.050Ω	2500
PBY-201209-T-301Y-□	300 ± 25%	100	0.08Ω	2000
PBY-201209-T-601Y-□	600 ± 25%	100	0.100Ω	2000
PBY-201209-T-102Y-□	1000 ± 25%	100	0.12Ω	1500



# Chilisin Electronics Singapore Pte Ltd

High Current Chip Beads, PBY Series



## Electrical Characteristics:

Part Number	Impedance ( ohm )	Test Frequency ( MHz )	DC Resistance ( ohms ) Max	Rated Current ( mA ) Max
PBY-321611-T-190Y-□	19 ± 25%	100	0.015Ω	6000
PBY-321611-T-320Y-□	32 ± 25%	100	0.015Ω	4000
PBY-321611-T-500Y-□	50 ± 25%	100	0.020Ω	4000
PBY-321611-T-700Y-□	70 ± 25%	100	0.020Ω	4000
PBY-321611-T-800Y-□	80 ± 25%	100	0.025Ω	4000
PBY-321611-T-900Y-□	90 ± 25%	100	0.030Ω	4000
PBY-321611-T-121Y-□	120 ± 25%	100	0.020Ω	3000
PBY-321611-T-601Y-□	600 ± 25%	100	0.100Ω	2000
PBY-321611-T-102Y-□	1000 ± 25%	50	0.15Ω	1200
PBY-321611-T-122Y-□	1200 ± 25%	50	0.18Ω	1000
PBY-321611-T-152Y-□	1500 ± 25%	50	0.20Ω	800
PBY-322513-T-600Y-□	60 ± 25%	100	0.25Ω	4000
PBY-322513-T-900Y-□	90 ± 25%	100	0.25Ω	3000
PBY-451616-T-500Y-□	50 ± 25%	100	0.020Ω	6000
PBY-451616-T-600Y-□	60 ± 25%	100	0.020Ω	5000
PBY-451616-T-800Y-□	80 ± 25%	100	0.025Ω	4000
PBY-451616-T-900Y-□	90 ± 25%	100	0.040Ω	4000
PBY-451616-T-151Y-□	150 ± 25%	100	0.100Ω	2000
PBY-453215-T-700Y-□	70 ± 25%	100	0.030Ω	6000
PBY-453215-T-121Y-□	120 ± 25%	100	0.030Ω	4000
PBY-453212-T-151Y-□	150 ± 25%	100	0.030Ω	4000
PBY-453215-T-601Y-□	600 ± 25%	100	0.100Ω	2000

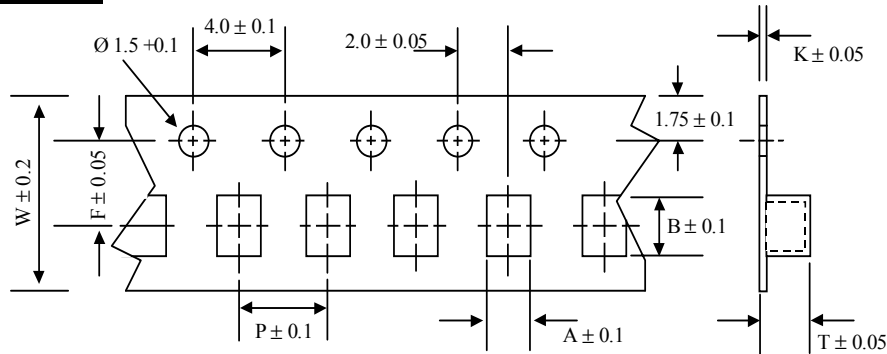


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## High Current Chip Beads, PBY Series



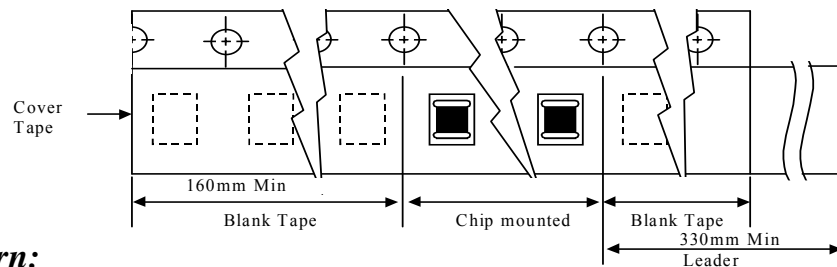
### Tape Dimensions:



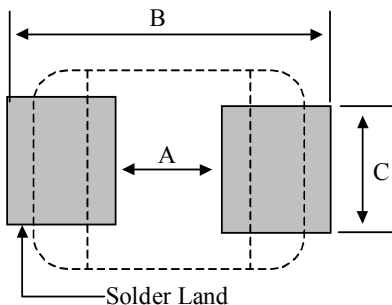
Type	A	B	T	W	P	F	K
PBY-100505	0.65	1.15	-	8.0	2.0	3.5	0.6
PBY-160808	1.10	1.85	-	8.0	4.0	3.5	0.95
PBY-201209	1.42	2.25	1.04	8.0	4.0	3.5	0.22
PBY-321611	1.88	3.50	1.27	8.0	4.0	3.5	0.22
PBY-322513	2.77	3.42	1.55	8.0	4.0	.35	0.22
PBY-451616	1.93	4.95	1.93	12.0	4.0	5.5	0.24
PBY-453215	3.66	4.95	1.85	12.0	8.0	5.5	0.24

### Tape Material:

Carrier Tape: Polystyrene  
Cover Type : Polyethylene



### Recommended Pattern:



Type	A	B	C
PBY-100505	0.4 ~ 0.6	1.6 ~ 2.6	0.4 ~ 0.7
PBY-160808	0.8	2.4 ~ 3.4	0.6
PBY-201209	1.2	3.0 ~ 4.0	1.0
PBY-321611	2.0	4.2 ~ 5.2	1.2
PBY-322522	2.0	5.5 ~ 6.5	1.8
PBY-451616	3.0	5.5 ~ 6.5	1.2
PBY-453215	3.0	5.5 ~ 6.5	2.4

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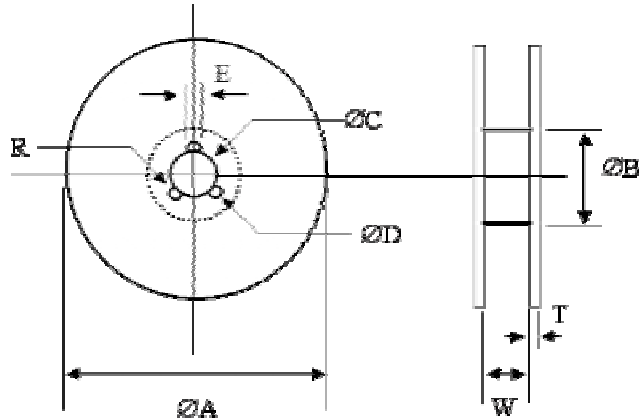


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High Current Chip Beads, PBY Series

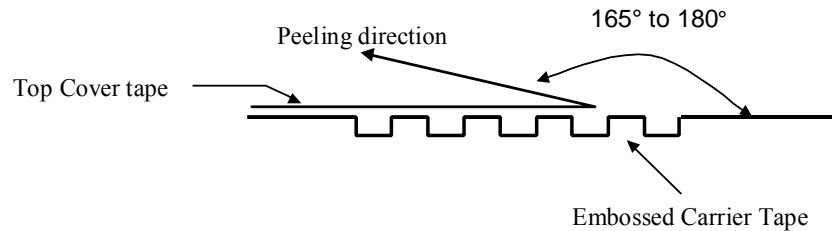


## Reel Dimensions:

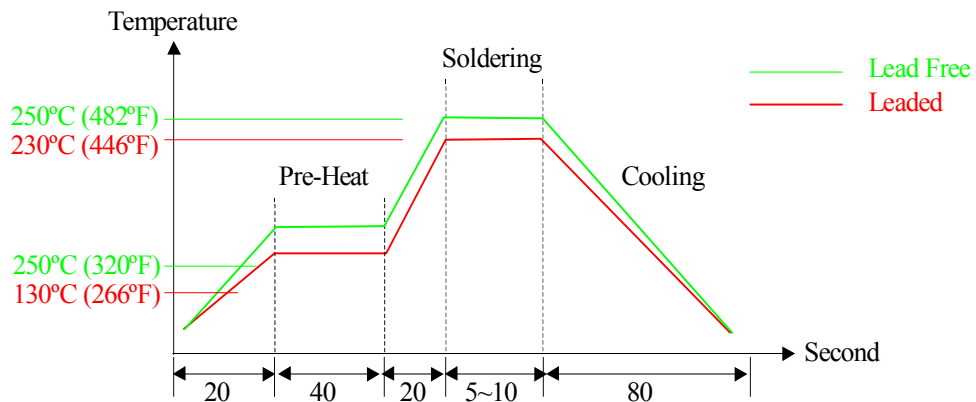


ØA	ØB	ØC	ØD	E	W	T	R
178 ±2	60 ±1	13.0 ±0.5	21.0 ±0.8	2.0 ±0.5	10.0 ±1.0	2.0 ±0.5	1.0

## Tape peeling:



## Recommended Soldering profile:



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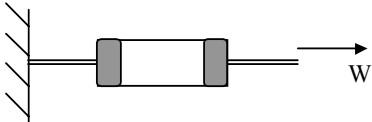
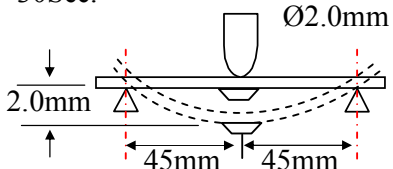
# Chilisin Electronics Singapore Pte Ltd

High Current Chip Beads, PBY Series



## General Component Specification for Chips Beads

### Reliability Test (Mechanical Performance)

No.	Item	Specification	Test Condition
1.	Solderability	More than 90% of the terminal Electrode shall be covered with fresh solder	Pre heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 245°C ± 5°C Immersion Time = 4 ± 1 Sec
2.	Resistance to Soldering Heat	The chips shall not crack. More than 75% of the terminal Electrode Shall be cover with solder	Pre Heat = 150°C Pre heat Time = 1 minute Solder = Sn/Ag3.0/Cu0.5 (Pb –Free) Solder Temperature = 260°C ± 5°C Immersion Time = 10 ± 1 Sec
3.	Terminal Strength Test	1005 Series = 0.2 kg (30 Sec) 1608 Series = 0.5 kg (30 Sec) 2012 Series = 1.0 kg (30 Sec) Others Series = 2.0 kg (30 Sec) BAY/BAQ = 1.5 kg (30 Sec)	Test device should be solder on Substrate 
4.	Bending Strength	The Ferrite and Terminal Electrode shall not be damage When force are applied per test Condition on the right	Test device shall be solder to substrate Substrate Dimension = 100mmx40mmx1.6mm Deflection = 2.0mm Duration = 30Sec.  For 1005 Substrate size 100mmx40mmx0.8mm
4.	Vibration		Test Device shall be soldered on the substrate Oscillation Freq.= 10 to 55 to 10Hz for 1 min Amplitude = 1.5mm Time = 2hrs for each axis (X,Y&Z) total 6 hrs

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# Chilisin Electronics Singapore Pte Ltd

High Current Chip Beads, PBY Series



## Reliability Test (Environmental Performance)

No.	Item	Specification	Test Condition															
5.	Temperature Cycle	Appearance No damage Impedance within $\pm 20\%$ Of the initial value	<p>One Cycle</p> <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>25°C</td> <td>3</td> </tr> <tr> <td>3</td> <td>125°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>25°C</td> <td>3</td> </tr> </tbody> </table> <p>Total 100 Cycles Measured after exposure in room condition = 24hrs</p>	Step	Temperature	Time (min)	1	-55°C	30	2	25°C	3	3	125°C	30	4	25°C	3
Step	Temperature	Time (min)																
1	-55°C	30																
2	25°C	3																
3	125°C	30																
4	25°C	3																
6	Humidity Resistance		<p>Temperature: <math>+40^{\circ}\text{C} \pm 2^{\circ}\text{C}</math> Humidity: 90% to 95% Time 1000 <math>\pm</math> 12 Hours Measured after exposure in room condition = 24hrs</p>															
7	High Temperature Resistance		<p>Temperature = <math>125^{\circ}\text{C} \pm 3^{\circ}\text{C}</math> Relative Humidity = 0% Applied Current = Rated Current as state Time = 1000 hrs <math>\pm</math> 12 hrs Measure after exposure in room Condition = 24hrs</p>															
8.	Low Temperature Resistance		<p>Temperature = <math>-55^{\circ}\text{C} \pm 3^{\circ}\text{C}</math> Relative Humidity = 0% Time = 1000 hrs <math>\pm</math> 12 hrs Measure after exposure in room Condition = 24hrs</p>															