








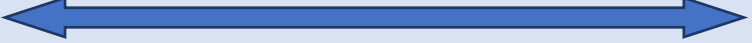




**PBL Series : Low ohmic PPTC**

PBL	Hold Current, A
0402 	0.10  0.50
0603 	0.35  3.00
0805 	0.75  4.50
1206 	1.50  6.00
1210 	1.75  7.00

## Surface Mount Polymer PTC

### Features:

PBL Series

- Resettable over-current protection
- Operating temperature range from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Small size
- Ultra-low resistance
- Fast time-to-trip

### Applications:

PBL Series

- Portable electronic devices
- Industrial controls
- Multimedia
- Game machines
- Telecom & broadband instruments
- Thermal protection for wearables, Li-ion polymer battery packs
- USB port protection

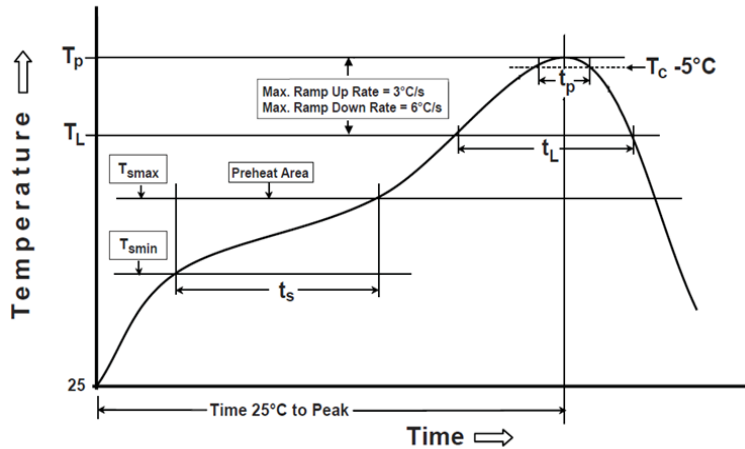
### Quick Index:

Series	Size	Current (A)	Page
PBL	0402	Hold ( $I_H$ ): 0.10,0.20,0.35,0.50	3
		Trip ( $I_T$ ): 0.30,0.50,0.70,1.00	
PBL	0603	Hold ( $I_H$ ): 0.35,0.50,0.75,1.00,1.25,1.50,2.00,2.50,2.60,3.00	5
		Trip ( $I_T$ ): 0.75,1.00,1.50,2.00,2.50,3.00,3.50,4.00,5.00,5.20,6.00	
PBL	0805	Hold ( $I_H$ ): 0.75,1.10,1.25,1.50,1.75,2.00,2.50,2.60,3.00,3.50,3.80,4.00,4.50	8
		Trip ( $I_T$ ): 1.50,2.20,2.50,3.00,3.50,4.00,5.00,5.20,6.00,7.00,8.00,9.00	
PBL	1206	Hold ( $I_H$ ): 1.50,1.75,2.00,2.60,3.00,3.50,3.80,4.00,4.50,5.00,5.50,6.00	12
		Trip ( $I_T$ ): 3.00,3.50,4.00,5.20,6.00,7.00,8.00,9.00,10.00,11.00,12.00	
PBL	1210	Hold ( $I_H$ ): 1.75,2.00,2.60,3.00,3.50,3.80,4.00,4.50,4.50,5.00,5.50,6.00,6.50,7.00	17
		Trip ( $I_T$ ): 3.50,4.00,5.20,6.00,7.00,8.00,9.00,10.00,11.00,12.00,13.00,14.00	

## Surface Mount Polymer PTC

### Soldering Temperature Profile:

\* Recommended Temperature Profile for Reflow Soldering



Profile Feature	Pb-Free Assembly
<b>Preheat/Soak</b>	
Temperature Min ( $T_{smin}$ )	150°C
Temperature Max ( $T_{smax}$ )	200°C
Time ( $t_s$ ) from ( $T_{smin}$ to $T_{smax}$ )	60~180 seconds
Ramp-up rate ( $T_L$ to $T_p$ )	3°C/second max.
Liquidous temperature ( $T_L$ )	217°C
Time ( $t_L$ ) maintained above $T_L$	60~150 seconds
Peak package body temperature ( $T_p$ )	260°C
Time ( $t_p$ )* within $5^\circ\text{C}$ of the specified classification temperature ( $T_c$ )	20~40 seconds *
Ramp-down rate ( $T_p$ to $T_L$ )	6°C/second max.
Time 25°C to peak temperature	8 minutes max.
* Tolerance for peak profile temperature ( $T_p$ ) is defined as a supplier minimum and a user maximum	

**Note:**

Polymer PTC cannot be wave soldered. Please contact AEM for hand soldering recommendations.

If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Compatible with Pb and Pb-free solder reflow profiles.

Excess solder may cause a short circuit, especially during hand soldering.

**Caution:**

Operation beyond the rated voltage or current may result in rupture electrical arcing or flame.

### Warning:

Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.

The devices are intended for protection against occasional over-current or over-temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.

Contamination of the PPTC material with certain silicon based oils or some aggressive solvents can adversely impact the performance of the devices.

Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal and mechanical procedures for electronic components.

Operation in circuit with a large inductance can generate a circuit voltage ( $L di/dt$ ) above the rated voltage of the PPTC device.

# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 0402 Size

### Ordering Code:

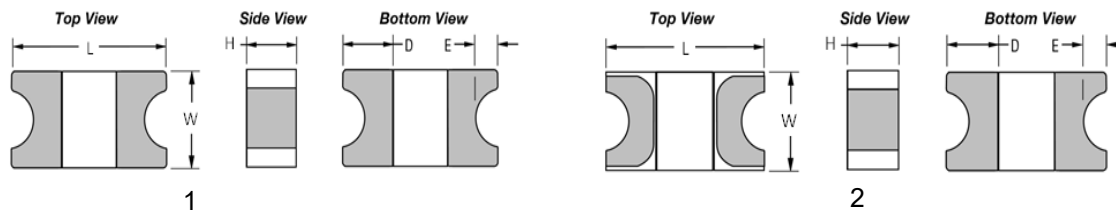
**PBL 0402-010-16**  
 (1) (2) (3) (4)

- (1) Series code
- (2) Size code
- (3) Current rating code 010: 0.10A
- (4) Voltage rating code 16: 16V

### Agency Approval:

UL file number: E355716  
 TÜV certification number: R50464768. Tested for EN60738-1: 2006+A1; EN60738-1:2008; EN60730-1: 2011 clause 15, 17 and Annex J

### Product Dimensions:



Part Number	Type	L mm (inches)		W mm (inches)		H mm (inches)		D mm (inches)	E mm (inches)
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
PBL0402-010-06	1								
PBL0402-020-06	2	0.85	1.15	0.35	0.65	0.20	0.60	0.10	0.030
PBL0402-035-06		(0.033)	(0.045)	(0.014)	(0.026)	(0.008)	(0.024)	(0.004)	(0.0012)
PBL0402-050-06									

### Product Specifications:

Operating temperature: -40 to +85°C

Part Number	Current (A)		V <sub>Max</sub> (Vdc)	I <sub>Max</sub> (A)	Max. Time to Trip (sec)		Typical Power (Pd, W)	Resistance Min. (Ω)	One Hours Post Reflow Resistance R <sub>1</sub> Max. (Ω) <sup>1</sup>	Agency Approval	
	Hold (I <sub>H</sub> )	Trip (I <sub>T</sub> )			Current (A)	Time (sec)				UL	TÜV
PBL0402-010-06	0.10	0.30	6	50	0.5	1.0	0.5	0.15	3.00	√	
PBL0402-020-06	0.20	0.50	6	50	1.0	1.0	0.5	0.10	1.60	√	√
PBL0402-035-06	0.35	0.70	6	50	8.0	0.1	0.5	0.05	0.85	√	√
PBL0402-050-06	0.50	1.00	6	50	8.0	0.1	0.5	0.04	0.50	√	√

1. The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 0402 Size

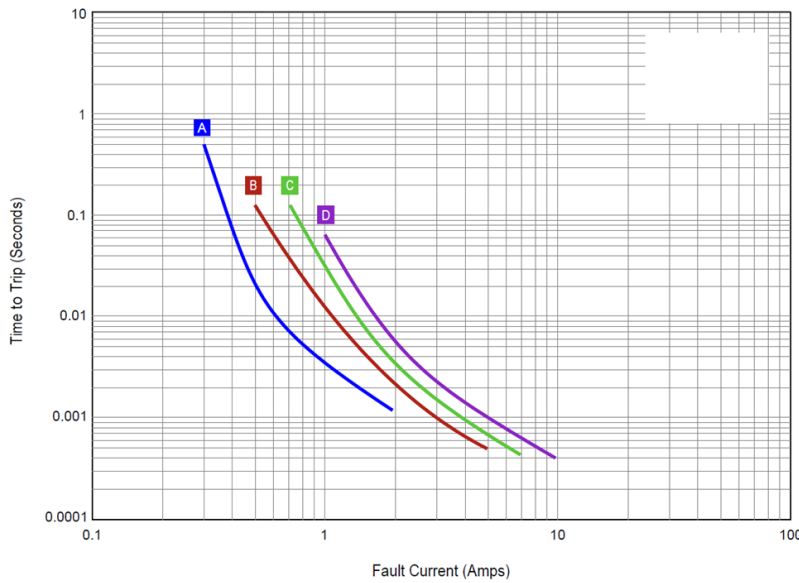
### Packaging and Marking Information:

Part Number	Part Marking	Tape & Reel Quantity (piece)
PBL0402-010-06	No marking	10,000
PBL0402-020-06		
PBL0402-035-06		
PBL0402-050-06		

### Thermal De-rating Hold Current (A) at Ambient Temperature (23°C):

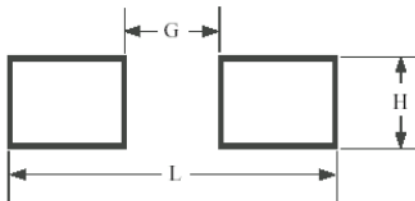
Part Number	Ambient temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PBL0402-010-06	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04
PBL0402-020-06	0.32	0.28	0.24	0.20	0.16	0.14	0.12	0.10	0.08
PBL0402-035-06	0.56	0.49	0.42	0.35	0.28	0.24	0.21	0.17	0.14
PBL0402-050-06	0.80	0.70	0.60	0.50	0.40	0.35	0.30	0.25	0.20

### Typical Time to Trip (@ 23°C):



A-PBL0402-010-06  
 B-PBL0402-020-06  
 C-PBL0402-035-06  
 D-PBL0402-050-06

### Recommended Foot Print Dimensions:



G (mm)	H (mm)	L (mm)
0.35±0.1	0.7±0.1	1.35±0.1

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 0603 Size

### Ordering Code:

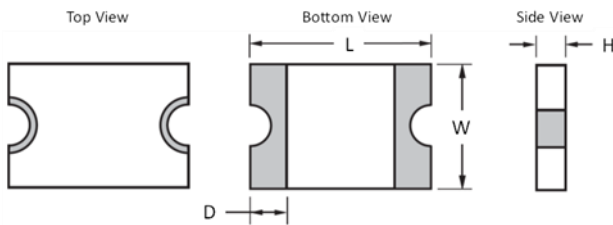
**PBL 0603—100- 08**  
(1) (2) (3) (4)

- (1) Series code
- (2) Size code
- (3) Current rating code 100: 1.00A
- (4) Voltage rating code 08:0.8V

### Agency Approval:

UL file number: E355716  
TüV certification number: R50464768. Tested for EN60738-1: 2006+A1; EN60738-1:2008; EN60730-1: 2011 clause 15, 17 and Annex J

### Product Dimensions:



Part Number	L mm (inches)		W mm (inches)		H mm (inches)		D mm (inches)
	Min.	Max.	Min.	Max.	Min.	Max.	Min.
PBL0603-035-08 PBL0603-050-08 PBL0603-075-08 PBL0603-100-08 PBL0603-125-08	1.45 (0.057)	1.85 (0.073)	0.65 (0.026)	1.05 (0.041)	0.40 (0.016)	0.70 (0.028)	0.20 (0.008)
PBL0603-150-08 PBL0603-175-08 PBL0603-200-06 PBL0603-250-06 PBL0603-260-06 PBL0603-300-06	1.45 (0.057)	1.85 (0.073)	0.65 (0.026)	1.05 (0.041)	0.60 (0.024)	1.40 (0.055)	

## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 0603 Size

#### Product Specifications:

Operating temperature: -40 to +85°C

Part Number	Current (A)		V <sub>Max</sub> (Vdc)	I <sub>Max</sub> (A)	Max. Time to Trip (sec)		Typical Power (Pd, W)	Resistance Min. (Ω)	One Hours Post Reflow Resistance R <sub>1</sub> Max. (Ω) <sup>1</sup>	Agency Approval	
	Hold (I <sub>H</sub> )	Trip (I <sub>T</sub> )			Current (A)	Time (sec)				UL	TÜV
PBL0603-035-08	0.35	0.75	8	50	8.0	0.1	0.5	0.080	1.000	√	√
PBL0603-050-08	0.50	1.00	8	50	8.0	0.6	0.5	0.060	0.500	√	√
PBL0603-075-08	0.75	1.50	8	50	8.0	1.0	0.5	0.050	0.250	√	√
PBL0603-100-08	1.00	2.00	8	50	8.0	2.0	0.5	0.040	0.220	√	√
PBL0603-125-08	1.25	2.50	8	50	8.0	3.0	0.5	0.020	0.180	√	√
PBL0603-150-08	1.50	3.00	8	50	8.0	4.0	0.6	0.010	0.120	√	√
PBL0603-175-08	1.75	3.50	8	50	8.0	5.0	0.6	0.008	0.070	√	√
PBL0603-200-06	2.00	4.00	6	50	8.0	5.0	0.7	0.006	0.065	√	√
PBL0603-250-06	2.50	5.00	6	50	8.0	5.0	0.7	0.0035	0.060	√	√
PBL0603-260-06	2.60	5.20	6	50	8.0	5.0	0.7	0.0035	0.055	√	√
PBL0603-300-06	3.00	6.00	6	50	8.0	5.0	0.7	0.003	0.050	√	√

1. The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

#### Packaging and Marking Information:

Part Number	Part Marking	Tape & Reel Quantity (piece)
PBL0603-035-08	No marking	6,000
PBL0603-050-08		
PBL0603-075-08		
PBL0603-100-08		
PBL0603-125-08		
PBL0603-150-08		4,000
PBL0603-175-08		
PBL0603-200-06		
PBL0603-250-06		
PBL0603-260-06		
PBL0603-300-06		

\*  $\underline{6}w \rightarrow \underline{6} = 1.1A$ ; w = Week code (w=Y → week 49~50)

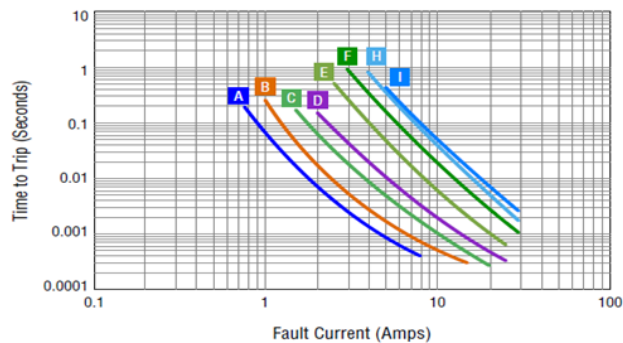
# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 0603 Size

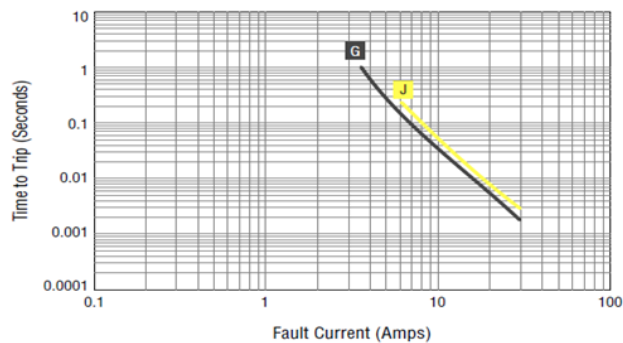
### Thermal De-rating Hold Current (A) at Ambient Temperature (23°C):

Part Number	Ambient temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PBL0603-035-08	0.46	0.40	0.38	0.35	0.29	0.26	0.24	0.20	0.14
PBL0603-050-08	0.66	0.57	0.54	0.50	0.41	0.37	0.34	0.28	0.20
PBL0603-075-08	1.00	0.86	0.81	0.75	0.62	0.56	0.51	0.43	0.30
PBL0603-100-08	1.32	1.15	1.08	1.00	0.82	0.74	0.68	0.57	0.40
PBL0603-125-08	1.65	1.43	1.35	1.25	1.04	0.92	0.85	0.71	0.51
PBL0603-150-08	2.00	1.73	1.62	1.50	1.21	1.09	1.02	0.84	0.62
PBL0603-175-08	2.30	2.00	1.89	1.75	1.42	1.28	1.20	0.98	0.71
PBL0603-200-06	2.63	2.27	2.15	2.00	1.63	1.45	1.37	1.12	0.82
PBL0603-250-06	3.27	2.85	2.70	2.50	2.02	1.82	1.70	1.40	1.02
PBL0603-260-06	3.41	2.96	2.80	2.60	2.11	1.90	1.77	1.45	1.05
PBL0603-300-06	3.92	3.42	3.25	3.00	2.42	2.20	2.06	1.68	1.20

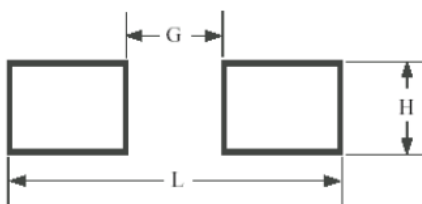
### Typical Time to Trip (@ 23°C):



- A-PBL0603-035-08
- B-PBL0603-050-08
- C-PBL0603-075-08
- D-PBL0603-100-08
- E-PBL0603-125-08
- F-PBL0603-150-08
- G-PBL0603-175-08
- H--PBL0603-200-06
- I--PBL0603-250-06& PBL0603-260-06
- J--PBL0603-300-06



### Recommended Foot Print Dimensions:



G (mm)	H (mm)	L (mm)
0.8±0.1	1.0±0.1	2.2±0.1



## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 0805 Size

#### Ordering Code:

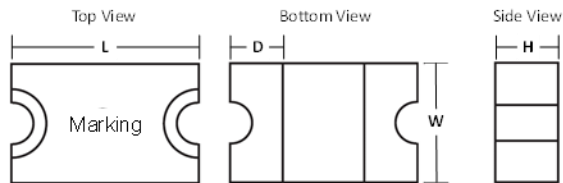
**PBL 0805—150—06**  
 (1) (2) (3) (4)

- (1) Series code
- (2) Size code
- (3) Current rating code 150: 1.5A
- (4) Voltage rating code 06: 6V

#### Agency Approval:

UL file number: E355716  
 TÜV certification number: R50464768. Tested for EN60738-1: 2006+A1; EN60738-1:2008; EN60730-1: 2011 clause 15, 17 and Annex J

#### Product Dimensions:



Part Number	L mm (inches)		W mm (inches)		H mm (inches)		D mm (inches)
	Min.	Max.	Min.	Max.	Min.	Max.	Min.
PBL0805-075-06 PBL0805-075-12 PBL0805-110-06 PBL0805-110-12 PBL0805-125-06 PBL0805-125-12 PBL0805-150-06 PBL0805-150-12 PBL0805-175-06 PBL0805-175-12	2.00 (0.079)	2.30 (0.091)	1.20 (0.047)	1.50 (0.059)	0.30 (0.012)	0.70 (0.028)	0.20 (0.008)
PBL0805-200-06 PBL0805-200-12 PBL0805-250-06 PBL0805-250-12 PBL0805-260-06 PBL0805-260-12 PBL0805-300-06 PBL0805-300-12	2.00 (0.079)	2.30 (0.091)	1.20 (0.047)	1.50 (0.059)	0.60 (0.024)	1.20 (0.047)	
PBL0805-350-08 PBL0805-380-08 PBL0805-400-08 PBL0805-450-08	2.00 (0.079)	2.30 (0.091)	1.20 (0.047)	1.50 (0.059)	0.60 (0.024)	0.95 (0.037)	

## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 0805 Size

#### Product Specifications:

Operating temperature: -40 to +85°C

Part Number	Current (A)		V <sub>Max</sub> (Vdc)	I <sub>Max</sub> (A)	Max. Time to Trip (sec)		Typical Power (Pd, W)	Resistance Min. (Ω)	One Hours Post Reflow Resistance R <sub>1</sub> Max. (Ω) <sup>1</sup>	Agency Approval	
	Hold (I <sub>H</sub> )	Trip (I <sub>T</sub> )			Current (A)	Time (sec)				UL	TÜV
PBL0805-075-06	0.75	1.5	6	50	8	0.2	0.7	0.04	0.3	√	√
PBL0805-075-12	0.75	1.5	12	50	8	0.2	0.7	0.04	0.3	√	√
PBL0805-110-06	1.10	2.20	6	50	8	0.3	0.7	0.03	0.21	√	√
PBL0805-110-12	1.10	2.20	12	50	8	0.3	0.7	0.03	0.21	√	√
PBL0805-125-06	1.25	2.50	6	50	8	0.4	0.7	0.02	0.16	√	√
PBL0805-125-12	1.25	2.50	12	50	8	0.4	0.7	0.02	0.16	√	√
PBL0805-150-06	1.50	3.00	6	50	8	0.5	0.7	0.015	0.08	√	√
PBL0805-150-12	1.50	3.00	12	50	8	0.5	0.7	0.015	0.08	√	√
PBL0805-175-06	1.75	3.50	6	50	8	1.0	0.7	0.01	0.065	√	√
PBL0805-175-12	1.75	3.50	12	50	8	1.0	0.7	0.01	0.065	√	√
PBL0805-200-06	2.00	4.00	6	50	8	2.0	0.8	0.005	0.05	√	√
PBL0805-200-12	2.00	4.00	12	50	8	2.0	0.8	0.005	0.05	√	√
PBL0805-250-06	2.50	5.00	6	50	8	2.0	0.8	0.003	0.04	√	√
PBL0805-250-12	2.50	5.00	12	50	8	2.0	0.8	0.003	0.04	√	√
PBL0805-260-06	2.60	5.20	6	50	8	4.0	0.8	0.003	0.03	√	√
PBL0805-260-12	2.60	5.20	12	50	8	4.0	0.8	0.003	0.03	√	√
PBL0805-300-06	3.00	6.00	6	50	8	5.0	0.8	0.003	0.02	√	√
PBL0805-300-12	3.00	6.00	12	50	8	5.0	0.8	0.003	0.02	√	√
PBL0805-350-08	3.50	7.00	8	50	8	5.0	0.9	0.002	0.018	√	√
PBL0805-380-08	3.80	7.60	8	50	8	5.0	0.9	0.001	0.016	√	√
PBL0805-400-08	4.00	8.00	8	50	8	12.5	0.9	0.001	0.014	√	√
PBL0805-450-08	4.50	9.00	8	50	8	12.5	0.9	0.001	0.012	√	√

1. The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 0805 Size

### Packaging and Marking Information:

Part Number	Part Marking	Tape & Reel Quantity (piece)	
PBL0805-075-06	D6	4,500	
PBL0805-075-12	D2		
PBL0805-110-06	E6		
PBL0805-110-12	E2		
PBL0805-125-06	F6		
PBL0805-125-12	F2		
PBL0805-150-06	G6		
PBL0805-150-12	G2		
PBL0805-175-06	H6		
PBL0805-175-12	H2		
PBL0805-200-06	J6		3,000
PBL0805-200-12	J2		
PBL0805-250-06	M6		
PBL0805-250-12	M2		
PBL0805-260-06	N6		
PBL0805-260-12	N2		
PBL0805-300-06	P6		
PBL0805-300-12	P2		
PBL0805-350-08	S8		
PBL0805-380-08	V8		
PBL0805-400-08	U8		
PBL0805-450-08	X8		

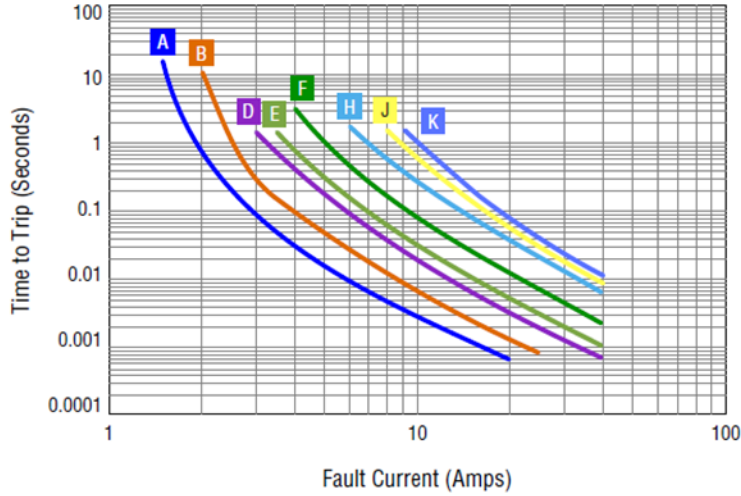
### Thermal De-rating Hold Current (A) at Ambient Temperature (23°C):

Part Number	Ambient temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PBL0805-075-06	1.12	1.01	0.95	0.75	0.64	0.58	0.52	0.47	0.37
PBL0805-075-12	1.12	1.01	0.95	0.75	0.64	0.58	0.52	0.47	0.37
PBL0805-110-06	1.65	1.48	1.40	1.10	0.94	0.85	0.77	0.69	0.55
PBL0805-110-12	1.65	1.48	1.40	1.10	0.94	0.85	0.77	0.69	0.55
PBL0805-125-06	1.87	1.69	1.59	1.25	1.06	0.96	0.87	0.79	0.62
PBL0805-125-12	1.87	1.69	1.59	1.25	1.06	0.96	0.87	0.79	0.62
PBL0805-150-06	2.25	2.02	1.90	1.50	1.28	1.16	1.05	0.94	0.75
PBL0805-150-12	2.25	2.02	1.90	1.50	1.28	1.16	1.05	0.94	0.75
PBL0805-175-06	2.62	2.36	2.22	1.75	1.49	1.35	1.22	1.10	0.87
PBL0805-175-12	2.62	2.36	2.22	1.75	1.49	1.35	1.22	1.10	0.87
PBL0805-200-06	2.99	2.70	2.54	2.00	1.70	1.54	1.39	1.26	0.99
PBL0805-200-12	2.99	2.70	2.54	2.00	1.70	1.54	1.39	1.26	0.99
PBL0805-250-06	3.75	3.38	3.18	2.50	2.13	1.92	1.75	1.57	1.24
PBL0805-250-12	3.75	3.38	3.18	2.50	2.13	1.92	1.75	1.57	1.24
PBL0805-260-06	3.89	3.51	3.30	2.60	2.21	2.01	1.81	1.63	1.29
PBL0805-260-12	3.89	3.51	3.30	2.60	2.21	2.01	1.81	1.63	1.29
PBL0805-300-06	4.49	4.05	3.80	3.00	2.55	2.31	2.09	1.89	1.49
PBL0805-300-12	4.49	4.05	3.80	3.00	2.55	2.31	2.09	1.89	1.49
PBL0805-350-08	5.24	4.72	4.44	3.50	2.98	2.70	2.44	2.20	1.74
PBL0805-380-08	5.69	5.12	4.82	3.80	3.24	2.93	2.65	2.39	1.89
PBL0805-400-08	5.99	5.39	5.07	4.00	3.41	3.09	2.79	2.51	1.99
PBL0805-450-08	6.74	6.07	5.71	4.50	3.83	3.47	3.14	2.83	2.24

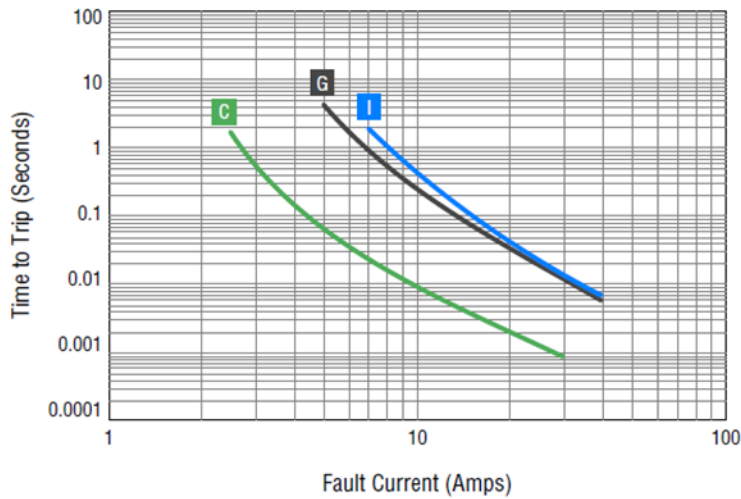
# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 0805 Size

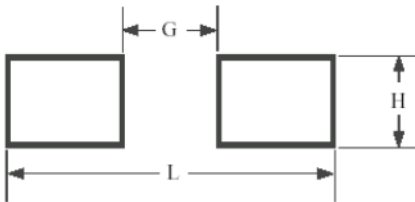
### Typical Time to Trip (@ 23°C):



- A-PBL0805-075-06&PBL0805-075-12
- B-PBL0805-110-06&PBL0805-110-12
- C-PBL0805-125-06&PBL0805-125-12
- D-PBL0805-150-06&PBL0805-150-12
- E-PBL0805-175-06&PBL0805-175-12
- F-PBL0805-200-06&PBL0805-200-12
- H-PBL0805-300-06&PBL0805-300-12
- G-PBL0805-250-06&PBL0805-250-12
- PBL0805-260-06&PBL0805-260-12
- I-PBL0805-350-08
- J-PBL0805-380-08&PBL0805-400-08
- K-PBL0805-450-08



### Recommended Foot Print Dimensions:



G (mm)	H (mm)	L (mm)
1.20±0.10	1.50±0.10	3.20±0.10

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 1206 Size

### Ordering Code:

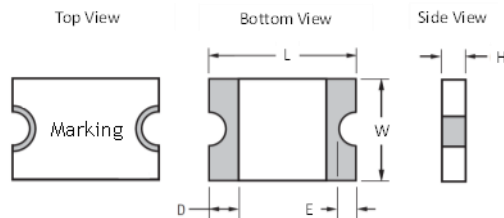
**PBL 1206—200—06**  
(1) (2) (3) (4)

- (1) Series code
- (2) Size code
- (3) Current rating code 200: 2.0A
- (4) Voltage rating code 6: 6V

### Agency Approval:

UL file number: E355716  
TüV certification number: R50464768. Tested for EN60738-1: 2006+A1; EN60738-1:2008; EN60730-1: 2011 clause 15, 17 and Annex J

### Product Dimensions:



Part Number	L mm (inches)		W mm (inches)		H mm (inches)		D mm (inches)	E mm (inches)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Max.
PBL1206-150-06 PBL1206-150-12 PBL1206-175-06 PBL1206-175-12 PBL1206-200-06 PBL1206-200-12	3.00 (0.118)	3.50 (0.138)	1.40 (0.055)	1.80 (0.071)	0.40 (0.016)	0.70 (0.028)	0.25 (0.010)	0.05 (0.002)	0.45 (0.018)
PBL1206-260-06 PBL1206-260-12	3.00 (0.118)	3.50 (0.138)	1.40 (0.055)	1.80 (0.071)	0.40 (0.016)	0.7 (0.028)			
PBL1206-300-06 PBL1206-300-12 PBL1206-350-06 PBL1206-350-12	3.00 (0.118)	3.50 (0.138)	1.40 (0.055)	1.80 (0.071)	0.40 (0.016)	1.20 (0.047)			
PBL1206-380-06 PBL1206-380-12 PBL1206-400-06 PBL1206-400-12 PBL1206-450-12	3.00 (0.118)	3.50 (0.138)	1.40 (0.055)	1.80 (0.071)	0.60 (0.024)	1.20 (0.047)			
PBL1206-450-06 PBL1206-500-06 PBL1206-550-06 PBL1206-600-06	3.00 (0.118)	3.50 (0.138)	1.40 (0.055)	1.80 (0.071)	0.60 (0.024)	0.95 (0.037)			

1. The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 1206 Size

#### Typical Ratings and Characteristics (@ 23°C):

Operating temperature: -40 to +85°C

Part Number	Current (A)		V <sub>Max</sub> (Vdc)	I <sub>Max</sub> (A)	Max. Time to Trip (sec)		Typical Power (Pd, W)	Resistance Min. (Ω)	One Hours Post Reflow Resistance R <sub>1</sub> Max. (Ω) <sup>1</sup>	Agency Approval	
	Hold (I <sub>H</sub> )	Trip (I <sub>T</sub> )			Current (A)	Time (sec)				UL	TÜV
PBL1206-150-06	1.50	3.00	6	50	8.00	5.00	1.0	0.010	0.065	√	√
PBL1206-150-12	1.50	3.00	12	50	8.00	5.00	1.0	0.010	0.065	√	√
PBL1206-175-06	1.75	3.50	6	50	8.00	5.00	1.0	0.006	0.050	√	√
PBL1206-175-12	1.75	3.50	12	50	8.00	5.00	1.0	0.006	0.050	√	√
PBL1206-200-06	2.00	4.00	6	50	8.00	5.00	1.0	0.005	0.040	√	√
PBL1206-200-12	2.00	4.00	12	50	8.00	5.00	1.0	0.005	0.040	√	√
PBL1206-260-06	2.60	5.20	6	50	8.00	5.00	1.0	0.004	0.030	√	√
PBL1206-260-12	2.60	5.20	12	50	8.00	5.00	1.0	0.004	0.030	√	√
PBL1206-300-06	3.00	6.00	6	50	8.00	5.00	1.0	0.003	0.024	√	√
PBL1206-300-12	3.00	6.00	12	50	8.00	5.00	1.0	0.003	0.024	√	√
PBL1206-350-06	3.50	7.00	6	50	10.0	5.00	1.0	0.002	0.022	√	√
PBL1206-350-12	3.50	7.00	12	50	10.0	5.00	1.0	0.002	0.022	√	√
PBL1206-380-06	3.80	7.60	6	50	10.0	5.00	1.0	0.002	0.020	√	√
PBL1206-380-12	3.80	7.60	12	50	10.0	5.00	1.0	0.002	0.020	√	√
PBL1206-400-06	4.00	8.00	6	50	10.0	5.00	1.0	0.002	0.018	√	√
PBL1206-400-12	4.00	8.00	12	50	10.0	5.00	1.0	0.002	0.018	√	√
PBL1206-450-06	4.50	9.00	6	50	22.5	2.00	1.0	0.002	0.014	√	√
PBL1206-450-12	4.50	9.00	12	50	22.5	2.00	1.0	0.002	0.014	√	√
PBL1206-500-06	5.00	10.0	6	50	25.0	5.00	1.0	0.002	0.011	√	√
PBL1206-550-06	5.50	11.0	6	50	27.5	5.00	1.0	0.002	0.010	√	√
PBL1206-600-06	6.00	12.0	6	50	30.0	5.00	1.0	0.002	0.009	√	√

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 1206 Size

### Packaging and Marking Information:

Part Number	Part Marking	Tape & Reel Quantity (piece)
PBL1206-150-06	G6	5,000
PBL1206-150-12	G12	
PBL1206-175-06	H6	
PBL1206-175-12	H12	
PBL1206-200-06	J6	
PBL1206-200-12	J12	
PBL1206-260-06	N6	
PBL1206-260-12	N12	
PBL1206-300-06	P6	3,500
PBL1206-300-12	P12	
PBL1206-350-06	S6	
PBL1206-350-12	S12	
PBL1206-380-06	V6	
PBL1206-380-12	V12	
PBL1206-400-06	U6	
PBL1206-400-12	U12	
PBL1206-450-06	X6	
PBL1206-450-12	X12	
PBL1206-500-06	Y6	
PBL1206-550-06	T6	
PBL1206-600-06	Z6	

\* 9w → 9 = 1.85A; w = Week code (w=Y → week 49~50)

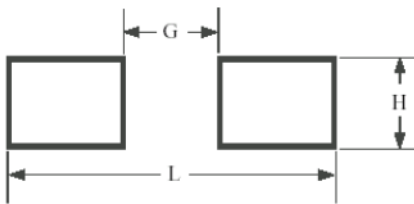
## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 1206 Size

#### Thermal De-rating Hold Current (A) at Ambient Temperature (23°C):

Part Number	Ambient temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PBL1206-150-06	2.20	2.00	1.77	1.50	1.28	1.15	1.07	0.85	0.70
PBL1206-150-12	2.20	2.00	1.77	1.50	1.28	1.15	1.07	0.85	0.70
PBL1206-175-06	2.57	2.33	2.07	1.75	1.49	1.34	1.24	1.00	0.80
PBL1206-175-12	2.57	2.33	2.07	1.75	1.49	1.34	1.24	1.00	0.80
PBL1206-200-06	2.94	2.65	2.35	2.00	1.70	1.53	1.42	1.14	0.93
PBL1206-200-12	2.94	2.65	2.35	2.00	1.70	1.53	1.42	1.14	0.93
PBL1206-260-06	3.82	3.46	3.07	2.60	2.21	1.95	1.85	1.48	1.20
PBL1206-260-12	3.82	3.46	3.07	2.60	2.21	1.95	1.85	1.48	1.20
PBL1206-300-06	4.41	3.99	3.54	3.00	2.55	2.32	2.13	1.71	1.38
PBL1206-300-12	4.41	3.99	3.54	3.00	2.55	2.32	2.13	1.71	1.38
PBL1206-350-06	5.15	4.66	4.13	3.50	2.98	2.71	2.49	2.00	1.65
PBL1206-350-12	5.15	4.66	4.13	3.50	2.98	2.71	2.49	2.00	1.65
PBL1206-380-06	5.59	5.05	4.48	3.80	3.23	2.95	2.60	2.15	1.75
PBL1206-380-12	5.59	5.05	4.48	3.80	3.23	2.95	2.60	2.15	1.75
PBL1206-400-06	5.80	5.25	4.65	4.00	3.40	3.10	2.65	2.20	1.80
PBL1206-400-12	5.80	5.25	4.65	4.00	3.40	3.10	2.65	2.20	1.80
PBL1206-450-06	6.10	5.40	4.70	4.50	3.60	3.15	2.70	2.25	1.85
PBL1206-450-12	6.10	5.40	4.70	4.50	3.60	3.15	2.70	2.25	1.85
PBL1206-500-06	6.80	6.00	5.25	5.00	4.00	3.50	3.00	2.50	1.90
PBL1206-550-06	7.50	6.60	5.80	5.50	4.40	3.85	3.30	2.75	2.10
PBL1206-600-06	8.15	7.20	6.35	6.00	4.80	4.20	3.60	3.00	2.30

#### Recommended Foot Print Dimensions:



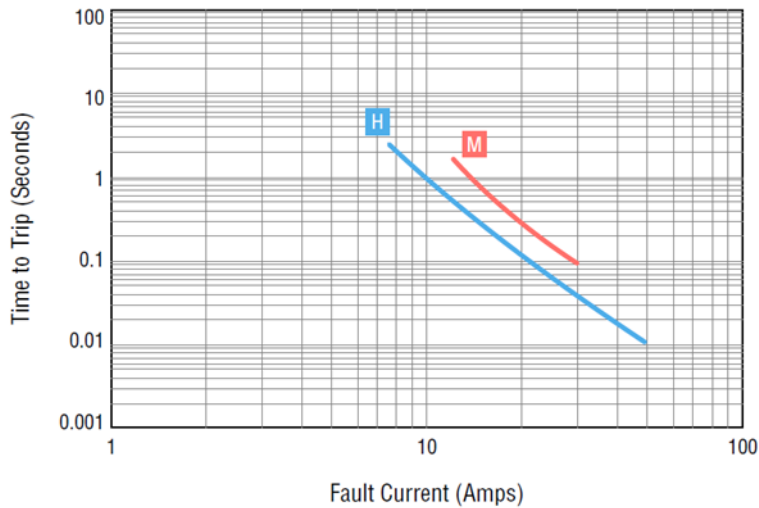
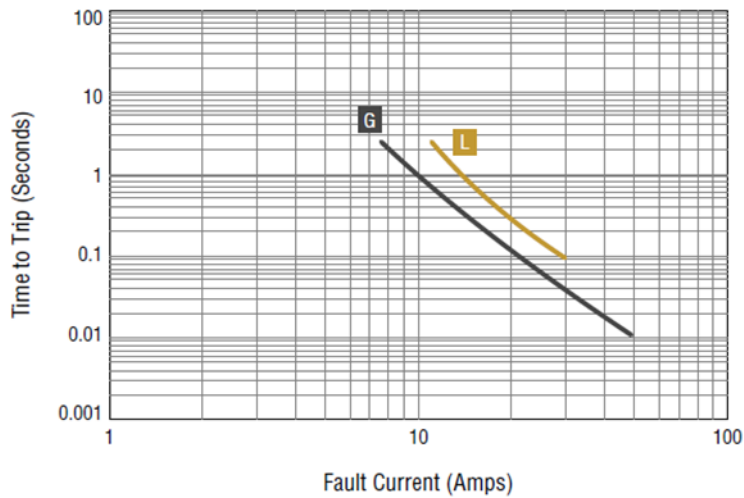
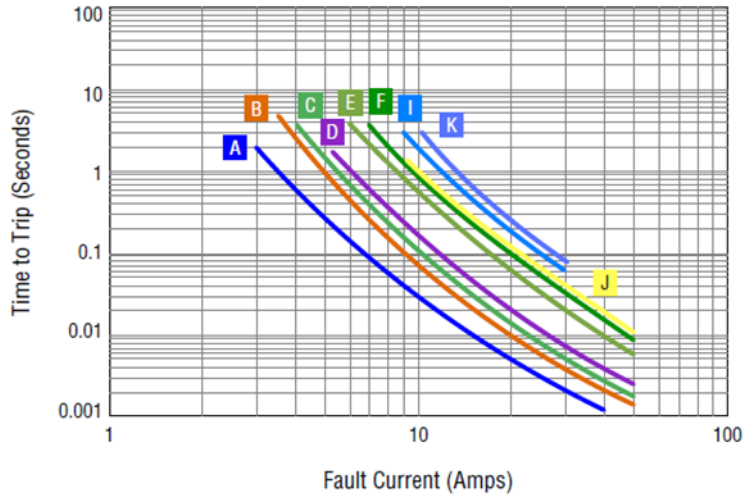
G (mm)	H (mm)	L (mm)
2.0±0.1	1.6±0.1	4.0±0.1



# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 1206 Size

### Typical Time to Trip (@ 23°C):



- A-PBL1206-150-06&PBL1206-150-12
- B-PBL1206-175-06&PBL1206-175-12
- C-PBL1206-200-06&PBL1206-200-12
- D-PBL1206-260-06&PBL1206-260-12
- E-PBL1206-300-06&PBL1206-300-12
- F-PBL1206-350-06&PBL1206-350-12
- G-PBL1206-380-06&PBL1206-380-12
- H-PBL1206-400-06&PBL1206-400-12
- I--PBL1206-450-06
- J--PBL1206-450-12
- K-PBL1206-500-06
- L-PBL1206-550-06
- M-PBL1206-600-06

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 1210 Size

### Ordering Code:

**PBL 1210—200 - 06**  
(1) (2) (3) (4)

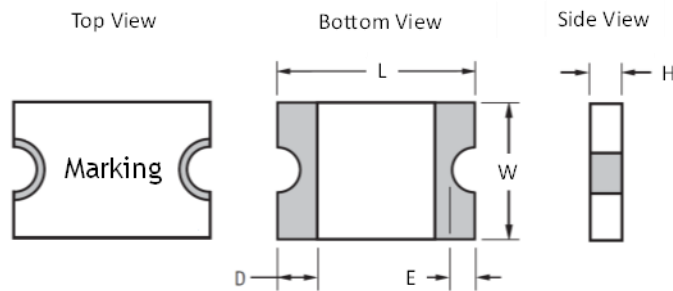
- (1) Series code
- (2) Size code
- (3) Current rating code 200: 2.0A
- (4) Voltage rating code 06: 6V

### Agency Approval:

UL file number: E355716

TüV certification number: R50464768. Tested for EN60738-1: 2006+A1; EN60738-1:2008; EN60730-1: 2011 clause 15, 17 and Annex J

### Product Dimensions:



Part Number	L mm (inches)		W mm (inches)		H mm (inches)		D mm (inches)	E mm (inches)	
	Min.	Max.	Min.	Max.	Min.	Max.		Min.	Max.
PBL1210-175-06 PBL1210-175-12 PBL1210-200-06 PBL1210-200-12 PBL1210-260-06 PBL1210-260-12	3.00 (0.118)	3.43 (0.135)	2.35 (0.093)	2.80 (0.110)	0.40 (0.016)	0.70 (0.028)			
PBL1210-300-06 PBL1210-300-12 PBL1210-350-06 PBL1210-350-12 PBL1210-380-06 PBL1210-380-12 PBL1210-400-06 PBL1210-400-12 PBL1210-450-06 PBL1210-450-12 PBL1210-500-06 PBL1210-500-12 PBL1210-550-06 PBL1210-550-12	3.00 (0.118)	3.43 (0.135)	2.35 (0.093)	2.80 (0.110)	0.60 (0.024)	1.20 (0.047)	0.25 (0.010)	0.05 (0.002)	0.45 (0.018)
PBL1210-600-06 PBL1210-650-06 PBL1210-700-06	3.00 (0.118)	3.43 (0.135)	2.35 (0.093)	2.80 (0.110)	0.60 (0.024)	0.95 (0.037)			

1. The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering state.

## Surface Mount Polymer PTC

### Low Ohmic, PBL Series, 1210 Size

#### Typical Ratings and Characteristics (@ 23°C):

Operating temperature: -40 to +85°C

Part Number	Current (A)		V <sub>Max</sub> (Vdc)	I <sub>Max</sub> (A)	Max. Time to Trip (sec)		Typical Power (Pd, W)	Resistance Min. (Ω)	One Hours Post Reflow Resistance R <sub>1</sub> Max. (Ω) <sup>1</sup>	Agency Approval	
	Hold (I <sub>H</sub> )	Trip (I <sub>T</sub> )			Current (A)	Time (sec)				UL	TÜV
PBL1210-175-06	1.75	3.50	6	50	8.00	0.8	1.0	0.0060	0.0500	√	√
PBL1210-175-12	1.75	3.50	12	50	8.00	0.8	1.0	0.006	0.05	√	√
PBL1210-200-06	2.00	4.00	6	50	8.00	5.00	1.0	0.005	0.0400	√	√
PBL1210-200-12	2.00	4.00	12	50	8.00	5.00	1.0	0.0050	0.0400	√	√
PBL1210-260-06	2.60	5.20	6	50	8.00	5.00	1.0	0.0040	0.0300	√	√
PBL1210-260-12	2.60	5.20	12	50	8.00	5.00	1.0	0.0040	0.0300	√	√
PBL1210-300-06	3.00	6.00	6	50	15.00	5.00	1.0	0.0030	0.0240	√	√
PBL1210-300-12	3.00	6.00	12	50	15.00	5.00	1.0	0.0030	0.0240	√	√
PBL1210-350-06	3.50	7.00	6	50	17.00	5.00	1.0	0.0020	0.0220	√	√
PBL1210-350-12	3.50	7.00	12	50	17.00	5.00	1.0	0.0020	0.0220	√	√
PBL1210-380-06	3.80	7.60	6	50	19.00	5.00	1.0	0.0020	0.0200	√	√
PBL1210-380-12	3.80	7.60	12	50	19.00	5.00	1.0	0.0020	0.0200	√	√
PBL1210-400-06	4.00	8.00	6	50	20.00	5.00	1.0	0.0020	0.018	√	√
PBL1210-400-12	4.00	8.00	12	50	20.00	5.00	1.0	0.0020	0.018	√	√
PBL1210-450-06	4.50	9.00	6	50	22.50	2.00	1.0	0.0020	0.0140	√	√
PBL1210-450-12	4.50	9.00	12	50	22.50	2.00	1.0	0.0020	0.0140	√	√
PBL1210-500-06	5.00	10.0	6	50	25.00	2.00	1.2	0.0010	0.0120	√	√
PBL1210-500-12	5.00	10.0	12	50	25.00	2.00	1.2	0.0010	0.0120	√	√
PBL1210-550-06	5.50	11.0	6	50	27.50	2.00	1.2	0.0010	0.0100	√	√
PBL1210-550-12	5.50	11.0	12	50	27.50	2.00	1.2	0.0010	0.0100	√	√
PBL1210-600-06	6.00	12.0	6	50	30.00	2.00	1.2	0.0010	0.0100	√	√
PBL1210-650-06	6.50	13.0	6	50	32.50	2.00	1.2	0.0010	0.0090	√	√
PBL1210-700-06	7.00	14.0	6	50	35.00	2.00	1.2	0.0010	0.0080	√	√

<sup>1</sup> The max resistance of one-hour post reflow is a reference value. The value may change a little according to reflow conditions and soldering

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 1210 Size

### Packaging and Marking Information:

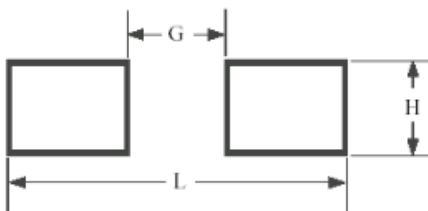
Part Number	Part Marking	Tape & Reel Quantity (piece)
PBL1210-175-06	H6	5,000
PBL1210-175-12	H12	
PBL1210-200-06	J6	
PBL1210-200-12	J12	
PBL1210-260-06	N6	
PBL1210-260-12	N12	3,500
PBL1210-300-06	P6	
PBL1210-300-12	P12	
PBL1210-350-06	S6	
PBL1210-350-12	S12	
PBL1210-380-06	V6	
PBL1210-380-12	V12	
PBL1210-400-06	U6	
PBL1210-400-12	U12	
PBL1210-450-06	X6	
PBL1210-450-12	X12	
PBL1210-500-06	Y6	
PBL1210-500-12	Y12	
PBL1210-550-06	56	
PBL1210-550-12	512	
PBL1210-600-06	Z6	
PBL1210-650-06	66	
PBL1210-700-06	A6	

## Surface Mount Polymer PTC Low Ohmic, PBL Series, 1210 Size

### Thermal De-rating Hold Current (A) at Ambient Temperature (23°C):

Part Number	Ambient temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
PBL1210-175-06	2.57	2.33	2.07	1.75	1.49	1.34	1.24	1.00	0.88
PBL1210-175-12	2.57	2.33	2.07	1.75	1.49	1.34	1.24	1.00	0.88
PBL1210-200-06	2.94	2.65	2.35	2.00	1.70	1.53	1.42	1.14	1.0
PBL1210-200-12	2.94	2.65	2.35	2.00	1.70	1.53	1.42	1.14	1.0
PBL1210-260-06	3.82	3.46	3.07	2.60	2.21	1.95	1.85	1.48	1.30
PBL1210-260-12	3.82	3.46	3.07	2.60	2.21	1.95	1.85	1.48	1.30
PBL1210-300-06	4.41	3.99	3.54	3.00	2.55	2.30	2.13	1.71	1.50
PBL1210-300-12	4.41	3.99	3.54	3.00	2.55	2.30	2.13	1.71	1.50
PBL1210-350-06	5.10	4.65	4.13	3.50	2.98	2.65	2.50	2.00	1.75
PBL1210-350-12	5.10	4.65	4.13	3.50	2.98	2.65	2.50	2.00	1.75
PBL1210-380-06	5.59	5.05	4.48	3.80	3.23	2.95	2.70	2.17	1.90
PBL1210-380-12	5.59	5.05	4.48	3.80	3.23	2.95	2.70	2.17	1.90
PBL1210-400-06	5.80	5.25	4.70	4.00	3.40	3.10	2.80	2.28	2.00
PBL1210-400-12	5.80	5.25	4.70	4.00	3.40	3.10	2.80	2.28	2.00
PBL1210-450-06	6.30	5.65	4.95	4.50	3.83	3.40	2.95	2.50	2.05
PBL1210-450-12	6.30	5.65	4.95	4.50	3.83	3.40	2.95	2.50	2.05
PBL1210-500-06	7.00	6.25	5.50	5.00	4.25	3.75	3.25	2.75	2.25
PBL1210-500-12	7.00	6.25	5.50	5.00	4.25	3.75	3.25	2.75	2.25
PBL1210-550-06	7.70	6.90	6.05	5.50	4.68	4.15	3.60	3.05	2.40
PBL1210-550-12	7.70	6.90	6.05	5.50	4.68	4.15	3.60	3.05	2.40
PBL1210-600-06	8.40	7.50	6.60	6.00	5.10	4.50	3.90	3.30	2.65
PBL1210-650-06	9.10	8.15	7.15	6.50	5.50	4.90	4.25	3.60	2.85
PBL1210-700-06	9.80	8.75	7.70	7.00	5.95	5.25	4.55	3.85	3.05

### Recommended Foot Print Dimensions:

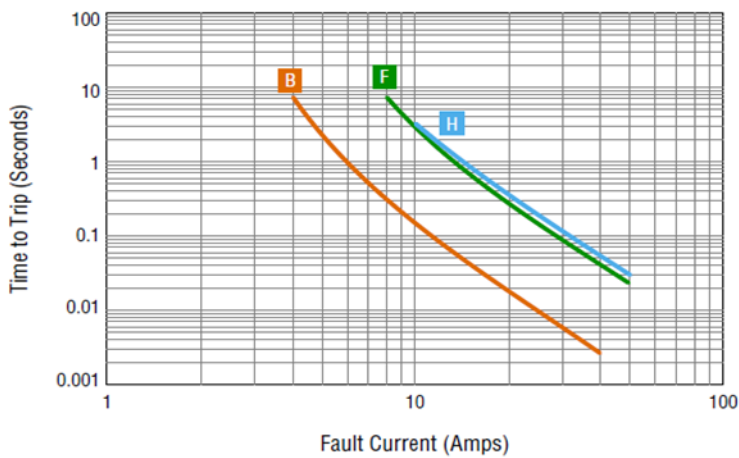
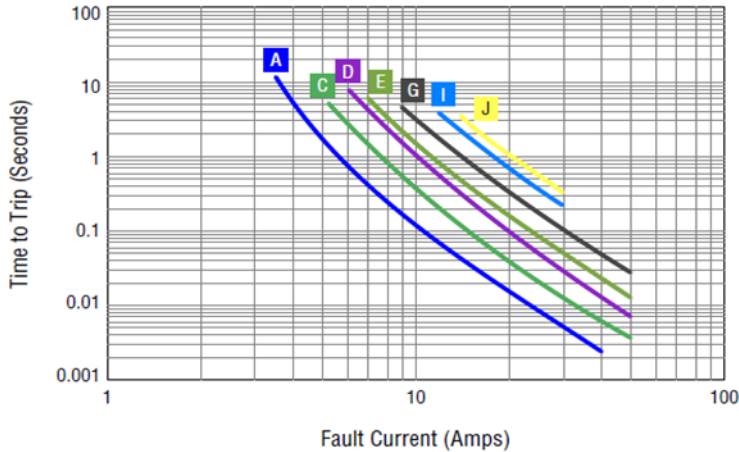


G (mm)	H (mm)	L (mm)
2.0±0.1	2.5±0.1	4.0±0.1

# Surface Mount Polymer PTC

## Low Ohmic, PBL Series, 1210 Size

### Typical Time to Trip (@ 23°C):



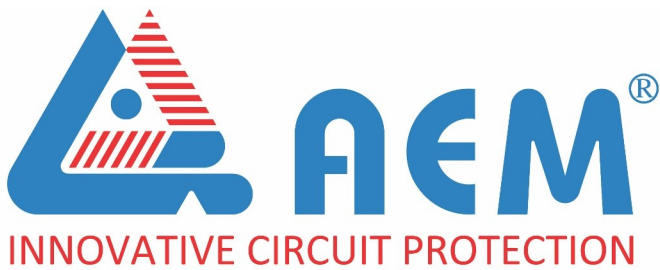
- A-PBL1210-175-06&PBL1210-175-12
- B-PBL1210-200-06&PBL1210-200-12
- C-PBL1210-260-06&PBL1210-260-12
- D-PBL1210-300-06&PBL1210-300-12
- E-PBL1210-350-06&PBL1210-350-12
- F-PBL1210-380-06&PBL1210-380-12  
PBL1210-400-06&PBL1210-400-12
- G-PBL1210-450-06&PBL1210-450-12
- H-PBL1210-500-06&PBL1210-500-12  
PBL1210-550-06&PBL1210-550-12
- I--PBL1210-600-06&PBL1210-650-06
- J--PBL1210-700-06

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## Note





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