

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Power Inductor	ABC'S DWG NO.	PV1823□□□□L□-□□□		
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I . Configuration and dimensions :

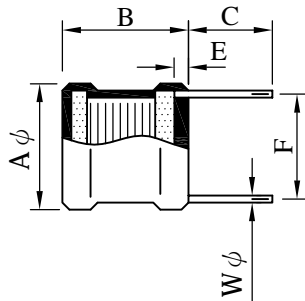


Fig : A

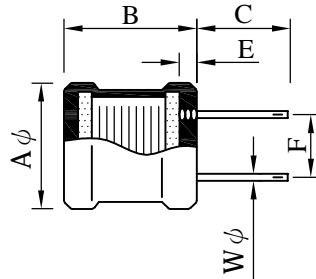
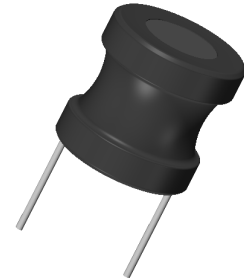


Fig : B



Unit : mm

A	B	C	E
18.00 max.	23.00 max.	15.00 ±5.0	3.00 max.

II . Description :

- a . Ferrite drum core construction
- b . Enamelled copper wire : F class
- c . Product weight : 17.5g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free

III . General specification :

- a . Storage temp. : -40°C ~ +125°C
- b . Operating temp. : -40°C ~ +125°C
(Temp. rise included.)

IV . Electrical characteristics :

DWG. No.	Inductance (μH)	Test Freq. (Hz)	RDC (Ω) max.	IDC (A) max.	Dimensions		Fig
					F m/m	Wφ m/m	
PV1823100ML□-□□□	10 ±20%	1k	0.009	8.0	14.0	1.2	A
PV1823250KL□-□□□	25 ±10%	1k	0.022	6.0	14.0	1.0	A
PV1823500KL□-□□□	50 ±10%	1k	0.036	4.0	14.0	1.0	A
PV1823101KL□-□□□	100 ±10%	1k	0.090	3.0	9.0	1.0	B
PV1823251KL□-□□□	250 ±10%	1k	0.150	2.0	9.0	1.0	B
PV1823501KL□-□□□	500 ±10%	1k	0.300	1.2	9.0	1.0	B
PV1823102KL□-□□□	1000 ±10%	1k	0.600	1.0	9.0	1.0	B

- 1). Electrical specifications at 25°C
- 2). IDC base on Temp. rise 45°C max. & ΔL/L0A=10% max.

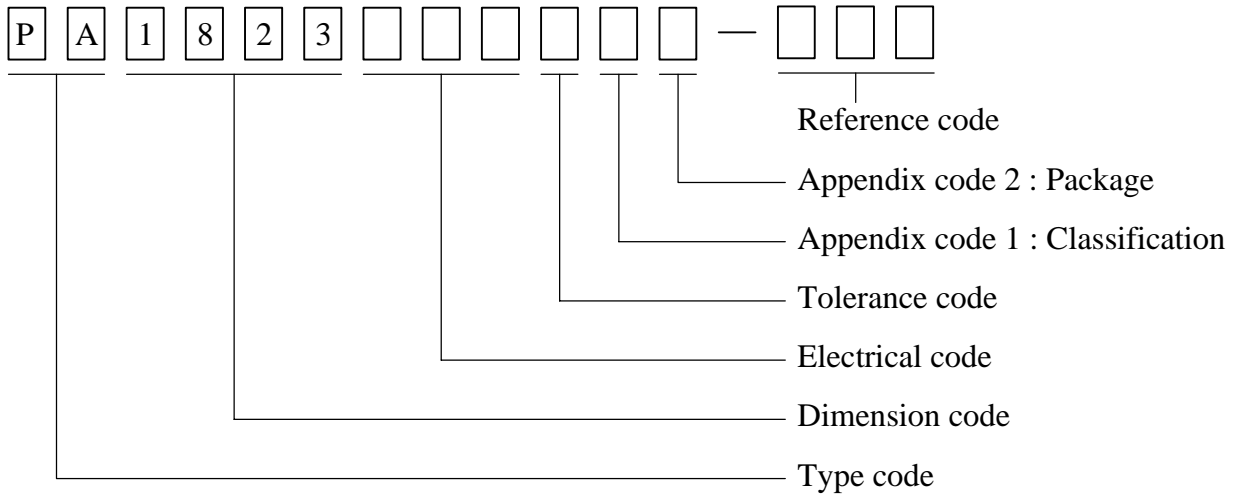
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V . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
A	Tray	N/A	N/A	N/A	45 pcs	
B	Tray	N/A	N/A	N/A	190 pcs	

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VI . Reliability test :

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2℃ 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~ +125℃ 2.Number of cycle:100 cycle 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature : 85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
4.Operational Life	JESD22-A 108	1.Temperature: 125℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of products. 2.Clear marking. 3.No crack.
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in apperance. 2.No marking blurred. 3.Inductance shall not change more than ±10%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitud : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210	1.Method : Dip 2.Temperature : 260±5℃ 3.Time : 10 seconds. 4.Number of times : 3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Rated current	Inductance shall not drop more than 10% max.
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current	Surface temperature rise is less than 45℃ max.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Dip pads in flux then dip in solder pot at 240±5℃ for 5 seconds.	More than 95% soldering coverage min on terminations.
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature : -40℃~125℃ 2.Room temperature : 25℃.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±10%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. PCB and dropped down from a height of 1m 2.Drop total time : 6 times (Every side of sample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Strength Test	MIL-STD-202 Method 211	1.Apply pull force to samples of terminals 2.Force of 910g for 60±1 seconds.	After test, inductors shall be no mechanical damage.

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