Data Sheet

Customer:	
Product:	**SMD Power Inductor – PCDS Series**
Sizes.:	**63B/74B/105B/125B**
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VIKING TECH CORPORATION
光頡科技股份有限公司
No.70, Guangfu N. Rd., Hukou Township, Hsinchu County 303, Taiwan (R.O.C)

TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH
光頡科技股份有限公司高雄分公司
No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung, 806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

VIKING ELECTRONICS (WUXI) CO., LTD.
光頡電子(無錫)有限公司
No.22 Xixia Road, Machinery & Industry Park, National Hi-Tech Industrial Development Zone of Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028
TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:china@viking.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
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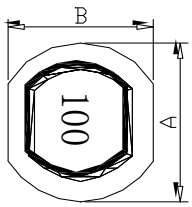
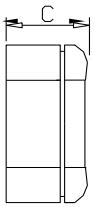
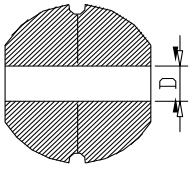
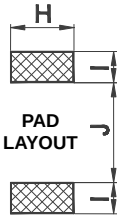
Kris Chen	*Ben Chang*	*Ben Chang*		

SMD Power Inductor









■Dimensions

Unit: mm

Type	A	B	C	D	H	I	J
PCDS63B	6.2±0.30	5.6±0.30	3.2±0.30	1.70	5.50	2.25	1.70
PCDS74B	7.8±0.50	7.0±0.50	4.5±0.50	1.90	7.50	4.00	2.00
PCDS105B	10.0±0.50	9.0±0.50	5.0±0.50	2.50	9.50	5.00	2.50
PCDS125B	12.6±0.50	11.6±0.50	5.4±0.50	3.00	12.00	6.00	3.00

■Features

- Silver Plated Type, Low cost design
- High power, High saturation inductors
- Ideal inductors for DC/DC converters
- With magnetically shielded against radiation
- Available on tape and reel for automatic surface mounting

■Inductance and rated current ranges

- PCDS63B 10～68μH 1.00～0.42A
- PCDS74B 4.7～820μH 3.15～0.16A
- PCDS105B 4.7～470μH 2.50～0.33A
- PCDS125B 10～820μH 2.65～0.36A
- Test equipment:
  L: HP4284A LCR meter
  DCR: Milli-ohm meter
- Electrical specifications at 25°C

■Applications

- Power Supply for VTRs
- LCD Televisions
- Notebook PCs
- Portable Communication
- DC/DC Converters, etc.

■Characteristics

- Rated DC current: The current when the inductance becomes 25% lower than its initial value or the actual current when the temperature of coil Increases to Δ 40°C. The smaller one is defined as Rated DC Current. (Ta=25°C)
- Operating temperature range: -40～125°C

■Product Identification

PCDS	63B	M	T	470
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	63B: 6.2×5.6×3.2 74B: 7.8×7.0×4.5 105B: 10.0×9.0×5.0 125B: 12.6×11.6×5.4	M: ±20% N: ±30%	T: Tape and Reel	4R7: 4.7μH 470: 47μH 101: 100μH

■Electrical Characteristics

PCDS63B Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCDS63B□T100	10	M	100KHz, 0.25V	0.14	1.00
PCDS63B□T120	12	M	100KHz, 0.25V	0.16	0.94
PCDS63B□T150	15	M	100KHz, 0.25V	0.18	0.86
PCDS63B□T180	18	M	100KHz, 0.25V	0.25	0.78
PCDS63B□T220	22	M	100KHz, 0.25V	0.32	0.76
PCDS63B□T270	27	M	100KHz, 0.25V	0.36	0.64
PCDS63B□T330	33	M	100KHz, 0.25V	0.41	0.61
PCDS63B□T390	39	M	100KHz, 0.25V	0.47	0.53
PCDS63B□T470	47	M	100KHz, 0.25V	0.51	0.50
PCDS63B□T560	56	M	100KHz, 0.25V	0.72	0.46
PCDS63B□T680	68	M	100KHz, 0.25V	0.82	0.42

PCDS74B Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCDS74B□T4R7	4.7	N	100KHz, 0.25V	0.03	3.15
PCDS74B□T6R8	6.8	N	100KHz, 0.25V	0.024	3.11
PCDS74B□T100	10	M	100KHz, 0.25V	0.07	1.65
PCDS74B□T120	12	M	100KHz, 0.25V	0.07	1.57
PCDS74B□T150	15	M	100KHz, 0.25V	0.08	1.39
PCDS74B□T180	18	M	100KHz, 0.25V	0.10	1.29
PCDS74B□T220	22	M	100KHz, 0.25V	0.13	1.12
PCDS74B□T270	27	M	100KHz, 0.25V	0.16	1.06
PCDS74B□T330	33	M	100KHz, 0.25V	0.18	0.97
PCDS74B□T390	39	M	100KHz, 0.25V	0.18	0.91
PCDS74B□T470	47	M	100KHz, 0.25V	0.27	0.80
PCDS74B□T560	56	M	100KHz, 0.25V	0.29	0.76
PCDS74B□T680	68	M	100KHz, 0.25V	0.33	0.68
PCDS74B□T820	82	M	100KHz, 0.25V	0.43	0.62
PCDS74B□T101	100	M	1KHz, 0.25V	0.49	0.55
PCDS74B□T121	120	M	1KHz, 0.25V	0.68	0.49
PCDS74B□T151	150	M	1KHz, 0.25V	0.94	0.44
PCDS74B□T181	180	M	1KHz, 0.25V	1.00	0.40
PCDS74B□T221	220	M	1KHz, 0.25V	1.18	0.36
PCDS74B□T271	270	M	1KHz, 0.25V	1.30	0.33
PCDS74B□T331	330	M	1KHz, 0.25V	1.35	0.26
PCDS74B□T391	390	M	1KHz, 0.25V	1.44	0.24
PCDS74B□T471	470	M	1KHz, 0.25V	1.65	0.22
PCDS74B□T561	560	M	1KHz, 0.25V	2.34	0.20
PCDS74B□T681	680	M	1KHz, 0.25V	2.60	0.18
PCDS74B□T821	820	M	1KHz, 0.25V	3.00	0.16

■Electrical Characteristics

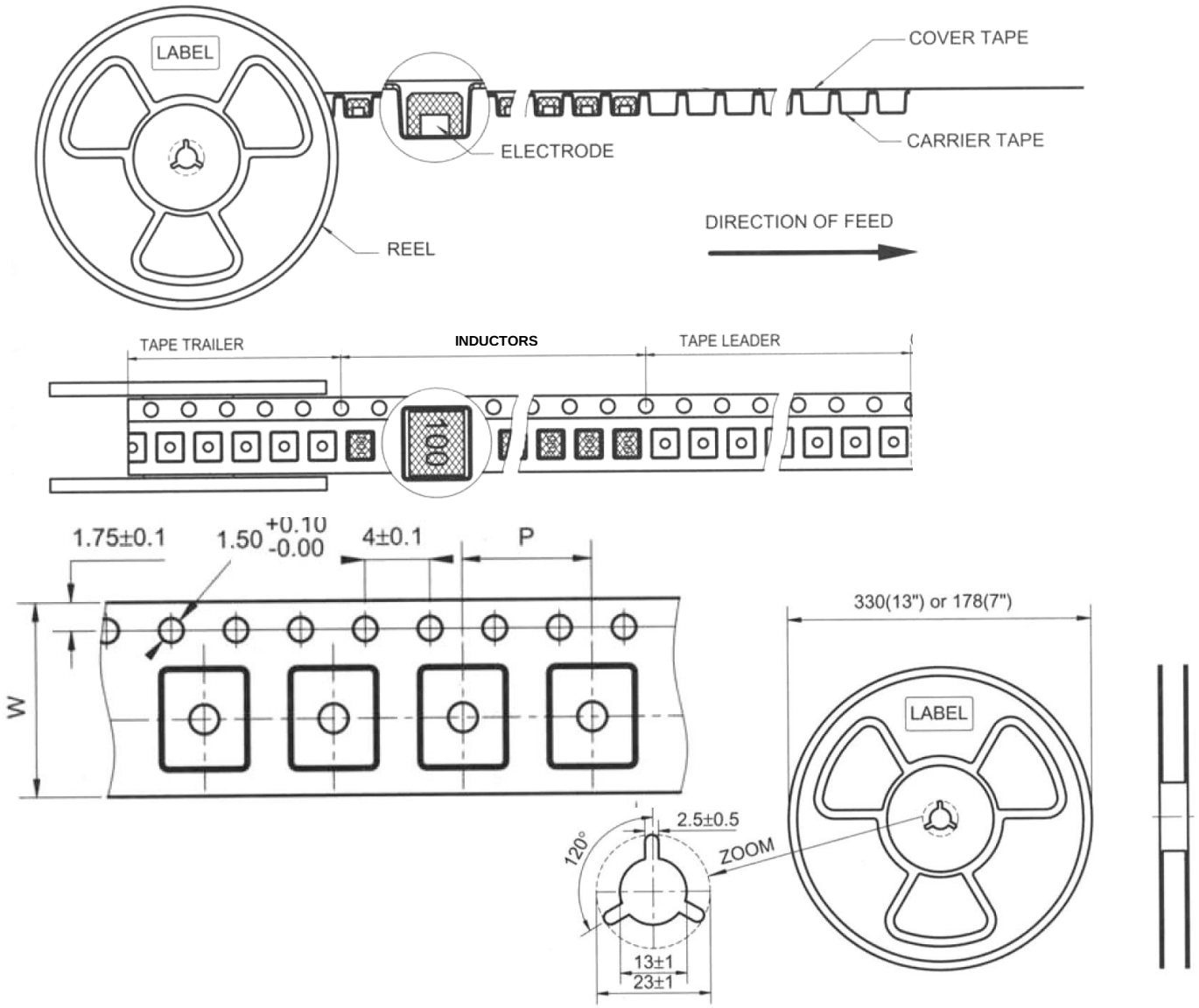
PCDS105B Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCDS105B□T4R7	4.7	N	100KHz, 0.25V	0.013	2.50
PCDS105B□T100	10	M	100KHz, 0.25V	0.06	2.06
PCDS105B□T120	12	M	100KHz, 0.25V	0.07	1.94
PCDS105B□T150	15	M	100KHz, 0.25V	0.07	1.72
PCDS105B□T180	18	M	100KHz, 0.25V	0.08	1.58
PCDS105B□T220	22	M	100KHz, 0.25V	0.08	1.42
PCDS105B□T270	27	M	100KHz, 0.25V	0.10	1.32
PCDS105B□T330	33	M	100KHz, 0.25V	0.11	1.16
PCDS105B□T390	39	M	100KHz, 0.25V	0.12	1.10
PCDS105B□T470	47	M	100KHz, 0.25V	0.14	1.00
PCDS105B□T560	56	M	100KHz, 0.25V	0.19	0.93
PCDS105B□T680	68	M	100KHz, 0.25V	0.21	0.85
PCDS105B□T820	82	M	100KHz, 0.25V	0.28	0.79
PCDS105B□T101	100	M	1KHz, 0.25V	0.34	0.72
PCDS105B□T121	120	M	1KHz, 0.25V	0.37	0.63
PCDS105B□T151	150	M	1KHz, 0.25V	0.51	0.55
PCDS105B□T181	180	M	1KHz, 0.25V	0.57	0.50
PCDS105B□T221	220	M	1KHz, 0.25V	0.78	0.47
PCDS105B□T271	270	M	1KHz, 0.25V	0.87	0.41
PCDS105B□T331	330	M	1KHz, 0.25V	1.20	0.37
PCDS105B□T391	390	M	1KHz, 0.25V	1.34	0.35
PCDS105B□T471	470	M	1KHz, 0.25V	1.50	0.33

PCDS125B Type(□:Tolerance):

Part No	L (μH)	Tolerance	Test Condition	DCR (Ω) max.	IDC (A) max.
PCDS125B□T100	10	M	100KHz, 0.25V	0.05	2.65
PCDS125B□T120	12	M	100KHz, 0.25V	0.05	2.50
PCDS125B□T150	15	M	100KHz, 0.25V	0.06	2.45
PCDS125B□T180	18	M	100KHz, 0.25V	0.06	2.40
PCDS125B□T220	22	M	100KHz, 0.25V	0.07	2.20
PCDS125B□T270	27	M	100KHz, 0.25V	0.08	2.00
PCDS125B□T330	33	M	100KHz, 0.25V	0.10	1.80
PCDS125B□T390	39	M	100KHz, 0.25V	0.11	1.65
PCDS125B□T470	47	M	100KHz, 0.25V	0.12	1.50
PCDS125B□T560	56	M	100KHz, 0.25V	0.15	1.38
PCDS125B□T680	68	M	100KHz, 0.25V	0.17	1.26
PCDS125B□T820	82	M	100KHz, 0.25V	0.20	1.14
PCDS125B□T101	100	M	1KHz, 0.25V	0.25	1.05
PCDS125B□T121	120	M	1KHz, 0.25V	0.28	0.95
PCDS125B□T151	150	M	1KHz, 0.25V	0.40	0.85
PCDS125B□T181	180	M	1KHz, 0.25V	0.48	0.77
PCDS125B□T221	220	M	1KHz, 0.25V	0.52	0.70
PCDS125B□T271	270	M	1KHz, 0.25V	0.70	0.63
PCDS125B□T331	330	M	1KHz, 0.25V	0.80	0.57
PCDS125B□T391	390	M	1KHz, 0.25V	1.08	0.52
PCDS125B□T471	470	M	1KHz, 0.25V	1.20	0.48
PCDS125B□T561	560	M	1KHz, 0.25V	1.34	0.44
PCDS125B□T681	680	M	1KHz, 0.25V	1.78	0.40
PCDS125B□T821	820	M	1KHz, 0.25V	2.00	0.36

■Tape and Reel specifications



Unit: mm

Type	Tape size		Parts Per Reel
	W	P	13″
PCDS63B	12	8	1500
PCDS74B	16	12	1000
PCDS105B	24	12	750
PCDS125B	24	16	500

■SMD Power Inductor Environmental Specifications

General

Items	Specifications
Shelf Storage conditions	Temperature range: 15~28℃; Humidity: <80% relative humidity. Recommended product should be used within one year from the time of delivery.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. △L/L≦10%	Temperature 85±2℃, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -40±2℃, Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2℃, 90~95% relative humidity Time: 96±2 hours Tested after 1hour at room temperature.
Thermal shock test		First -25℃ 30minutes then 25℃ 10 minutes last 85℃ 30 minutes, as 1 cycle. Go through 5 cycles. Tested after 1 hour at room temperature.

Mechanical test

Test Items	Specifications	Test Conditions / Test Methods
Solderability test	Terminal area must have 90% minimum solder coverage.	Product with Lead-free terminal: Dip pads in flux then dip in solder pot at 245±5℃ for 3 seconds.
Resistance to Soldering Heat	No case deformation or change in appearance.	Flux should cover the whole of the sample before heating, then be preheated for about 2 minutes over temperature of 130~150℃. Immersing to 260±5℃ for 10 seconds.
Vibration test	No case deformation or change in appearance. Δ L/L≦10%	Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
Shock resistance		Drop down with 981m/s^2(100G) shock attitude upon a rubber block method shock testing machine, for 1 time. In each of three orientations.

The condition of reflow (recommendation):