

PCDS

SMD POWER INDUCTOR



Applications

- Power supply for VTRs
- LCD televisions
- Notebook PCs
- Portable communication equipment
- DC/DC converters, etc

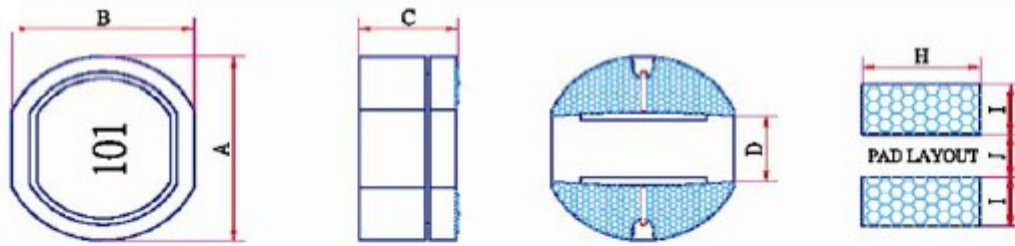
Features

- Silver Plated Type, Low cost design.
- High power ,High saturation inductors.
- Ideal inductors for DC/DC converters
- With magnetic shield against.
- Available on tape and reel for auto surface mounting

Inductance and rated current ranges

- | | | |
|------------|----------|------------|
| ● PCDS63B | 10~68uH | 1.0~0.42A |
| ● PCDS74B | 10~270uH | 1.65~0.33A |
| ● PCDS105B | 10~470uH | 2.06~0.33A |
| ● PCDS125B | 10~820uH | 2.65~0.36A |

Shape and Size:



Unit: mm

Codes	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±0.35	7.0±0.35	4.5±0.40	1.90	7.50	4.00	2.00
PCDS105B	10.0±0.40	9.0±0.40	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

Product Identification

PCDS 63B M T 101
 (1) (2) (3) (4) (5)

(1)Type: SMD Power Inductors

(2)Dimensions(mm): 63B=6.2×3.2, 74B=7.8×4.5, 105B=10.0×5.0
 125B=12.6×5.4

(3)Tolerance: M=20%

(4) Packaging style: T

(5) Inductance: 1R1=1.1uH ,470=47uH ,101 =100uH

Characteristics:

- Rated DC CURRENT:63B~105B The current when the inductance decreases to 90% (125B decreases to 75%) of its initial value or the actual current when the temperature of coil increases to $\Delta t=40^{\circ}\text{C}$.
- The smaller one is defined as Rated DC Current. ($T_a=25^{\circ}\text{C}$)
- Operating temperature: $-20\sim 80^{\circ}\text{C}$.

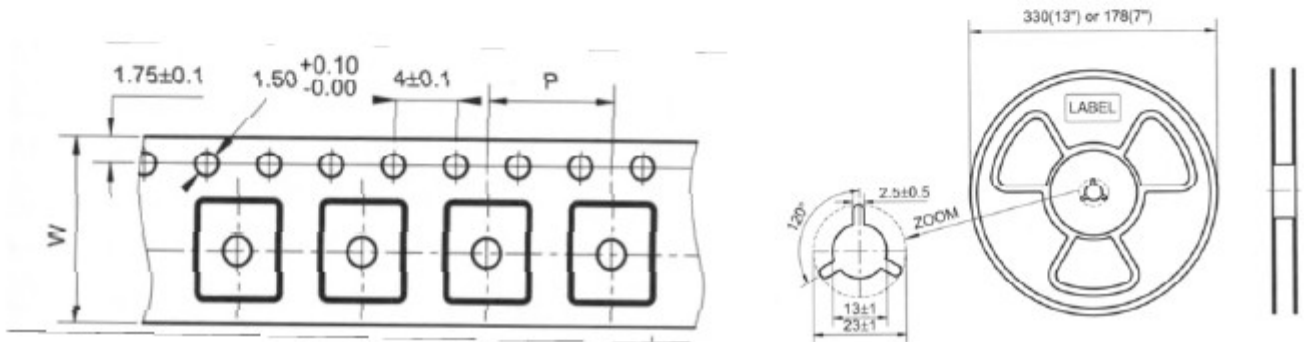
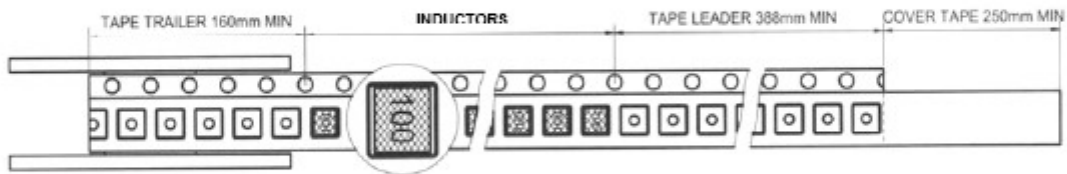
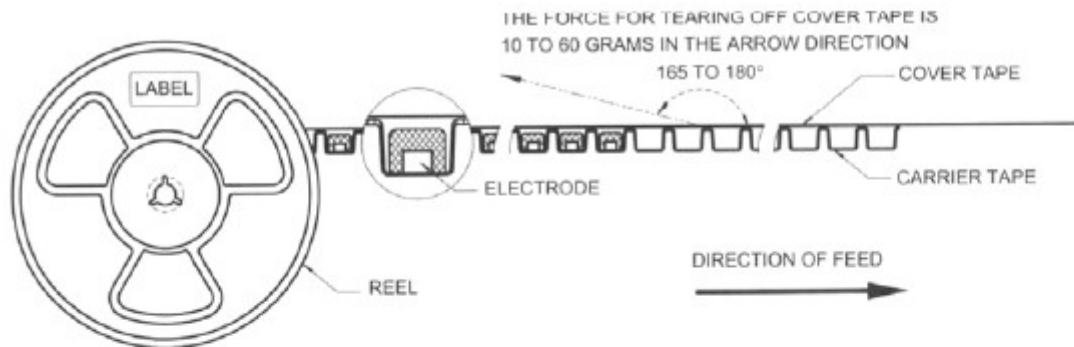


Shielded SMD Power Inductors

● PCDS 63B / 74B / 105B / 125B TYPE

Part No.	Tol.	L (uH)	DC Resistance (OHM)Max				Rated DC Current (A) Max			
			63B	74B	105B	125B	63B	74B	105B	125B
100	M	10	0.14	0.07	0.06	0.05	1.00	1.65	2.06	2.65
120	M	12	0.16	0.07	0.07	0.05	0.94	1.57	1.94	2.50
150	M	15	0.18	0.08	0.07	0.06	0.86	1.39	1.72	2.45
180	M	18	0.25	0.10	0.08	0.06	0.78	1.29	0.58	2.40
220	M	22	0.32	0.13	0.08	0.07	0.76	1.12	1.42	2.20
270	M	27	0.36	0.16	0.10	0.08	0.64	1.06	1.32	2.00
330	M	33	0.41	0.18	0.11	0.10	0.61	0.97	1.16	1.80
390	M	39	0.47	0.18	0.12	0.11	0.53	0.91	1.10	1.65
470	M	47	0.51	0.27	0.14	0.12	0.50	0.80	1.00	1.50
560	M	56	0.72	0.29	0.19	0.15	0.46	0.76	0.93	1.38
680	M	68	0.82	0.33	0.21	0.17	0.42	0.68	0.85	1.26
820	M	82	-	0.43	0.28	0.20	-	0.62	1.79	1.14
101	M	100	-	0.49	0.34	0.25	-	0.55	0.72	1.05
121	M	120	-	0.68	0.37	0.28	-	0.49	0.63	0.95
151	M	150	-	0.94	0.51	0.40	-	0.44	0.55	0.85
181	M	180	-	1.00	0.57	0.48	-	0.40	0.50	0.77
221	M	220	-	1.18	0.78	0.52	-	0.36	0.47	0.70
271	M	270	-	1.30	0.87	0.70	-	0.33	0.41	0.63
331	M	330	-	-	1.20	0.80	-	-	0.37	0.57
391	M	390	-	-	1.34	1.08	-	-	0.35	0.52
471	M	470	-	-	1.50	1.20	-	-	0.33	0.48
561	M	560	-	-	-	1.34	-	-	-	0.44
681	M	680	-	-	-	1.78	-	-	-	0.40
821	M	820	-	-	-	2.00	-	-	-	0.36

Tape and Reel specifications



Series	Tape size Unit:mm		Parts Per Reel Unit:PCS
	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
1.	Shelf Storage conditions	Temperature range: 25±3°C; Humidity: <80% relative humidity. Recommended product should be used within six months from the time of delivery.
2.	Storage temperature range	Temperature range: -40°C to +85°C.
3.	Operating temperature range	Temperature range: -20°C to +80°C.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
1. High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$ $\Delta L/L \leq 30\%$ (PS1608)	Temperature 85±2°C, Time: 48±2 hours, Tested after 1 hour at room temperature.
2. Low temperature Storage test		Temperature -25±2°C, Time: 48±2 hours, Tested after 1 hour at room temperature.
3. Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours, apply rated current, Tested after 1 hour at room temperature.
4. Thermal shock test		First -25°C 30minutes then 25°C 10 minutes last 85°C 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
1. 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°C for 5 seconds.
2. Heat endurance of Reflow soldering	No case deformation or change in appearance. $\Delta L/L \leq 10\%$ $\Delta L/L \leq 30\%$ (PS1608)	Refer to the reflow soldering condition. Go through 3 times.
3. Vibration test		Apply frequency 10~55Hz. 1.5mm amplitude in each of perpendicular direction for 2 hours.
4. 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):

Lead-free

