



Data Sheet

Customer :

Product : SMD Power Inductor – PCDH Series

Size : 1011/1307

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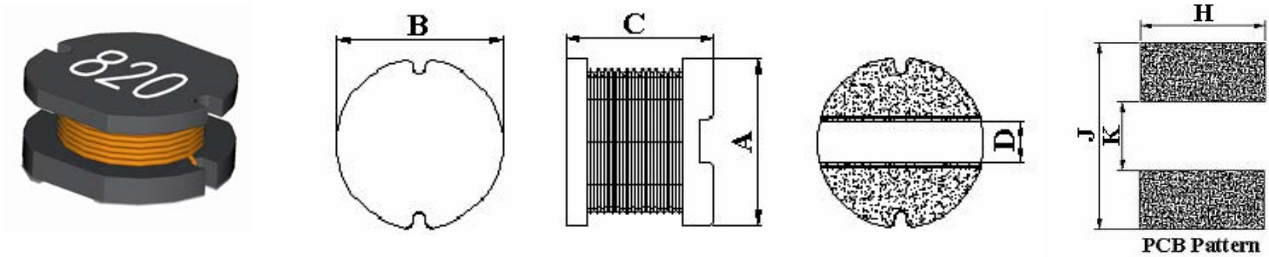
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SMD Power Inductor – PCDH Series



■ Dimensions

Unit: mm

Type	A	B	C	D	H	J	K
PCDH1011	9.5±0.3	9.5±0.3	11.5±0.3	2.9	10.0	10.0	2.8
PCDH1307	13.0±0.3	13.0±0.3	7.0±0.3	5.0	13.8	13.8	4.8

■ Features

- High power, High saturation inductors
- Ideal inductors for DC-DC converters
- Silver plated type, low cost design
- Available on tape and reel for auto surface mounting

■ Inductance and rated current ranges

- PCDH1011 1.5μH~1000μH 18~0.8A
- PCDH1307 1.5μH~470μH 16~1.0A
- Test equipment:
L: HP4284A LCR meter
DCR: Milli-ohm meter
- Electrical specifications at 25°C

■ Applications

- Power Supply For VTRS
- LCD Televisions
- DC/DC Converters, etc.
- Notebook PCs
- DC/DC Converters, etc

■ Characteristics

- Rated DC Current: The current when the inductance becomes 10% lower than its initial value. (Ta=25°C)
- Operating temperature range: -40~105°C

■ Product Identification

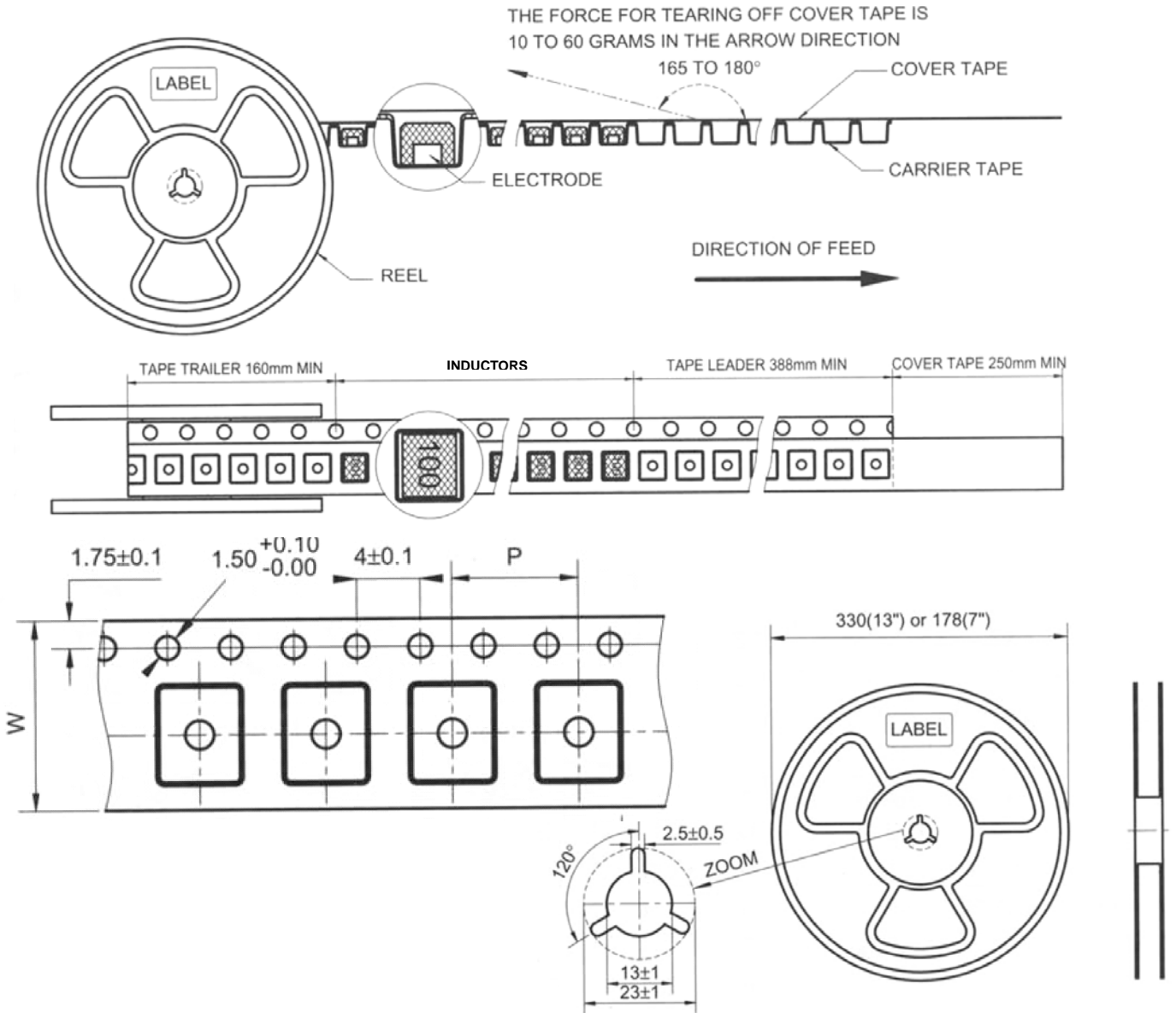
PCDH	1011	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
	1011: 9.5×9.5×11.5 1307: 13.0×13.0×7.0	K: ±10% M: ±20%	T: Tape and Reel	1R5: 1.5μH 470: 47μH 101: 100μH

■ Electrical Characteristics

PCDH1011 / 1307 Type

Codes	L (μ H)	Tolerance	Test Condition	RDC (Ω) max.		IDC (A) max.	
				1011	1307	1011	1307
1R5	1.5	M	100KHz, 0.25V	0.006	0.010	18.0	16.0
2R2	2.2	M	100KHz, 0.25V	0.010	0.010	16.0	14.0
3R3	3.3	M	100KHz, 0.25V	-	0.012	-	12.0
3R9	3.9	M	100KHz, 0.25V	-	0.014	-	11.0
4R7	4.7	M	100KHz, 0.25V	-	0.018	-	9.0
5R6	5.6	M	100KHz, 0.25V	-	0.028	-	8.0
6R8	6.8	M	100KHz, 0.25V	-	0.029	-	8.0
100	10	K	100KHz, 0.25V	0.035	0.021	8.0	8.0
150	15	K	100KHz, 0.25V	0.045	0.030	7.0	6.8
220	22	K	100KHz, 0.25V	0.065	0.034	5.5	5.8
270	27	K	100KHz, 0.25V	-	0.047	-	5.5
330	33	K	100KHz, 0.25V	0.080	0.060	4.0	4.5
390	39	K	100KHz, 0.25V	-	0.075	-	4.2
470	47	K	100KHz, 0.25V	0.110	0.082	3.8	4.0
560	56	K	100KHz, 0.25V	-	0.110	-	3.5
680	68	K	100KHz, 0.25V	0.150	0.120	3.0	2.78
820	82	K	100KHz, 0.25V	-	0.250	-	2.48
101	100	K	100KHz, 0.25V	0.200	0.320	2.5	2.16
121	120	K	100KHz, 0.25V	-	0.350	-	2.05
151	150	K	100KHz, 0.25V	0.320	0.380	2.0	1.80
181	180	K	100KHz, 0.25V	-	0.400	-	1.65
221	220	K	100KHz, 0.25V	0.420	0.480	1.7	1.45
331	330	K	100KHz, 0.25V	0.700	0.700	1.3	1.20
471	470	K	100KHz, 0.25V	0.900	1.000	1.1	1.00
681	680	K	100KHz, 0.25V	1.250	-	1.0	-
102	1000	K	100KHz, 0.25V	1.900	-	0.8	-

■ Tape and Reel specifications



Unit: mm

Type	Tape size		Parts Per Reel
	W	P	13" (EA)
PCDH1011	24	16	250
PCDH1307	24	16	400

■ SMD Power Inductor Environmental Specifications

General

Items	Specifications
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.
Storage temperature range	Temperature range: -40°C to +125°C

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
High temperature Storage test	No case deformation or change in appearance. ΔL/L±10%	Temperature 85±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
Low temperature Storage test		Temperature -25±2°C Time: 48±2 hours, Tested after 1hour at room temperature.
Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours, apply rated current, Tested after 1hour at room temperature.
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
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 3 seconds.
Heat endurance of Reflow soldering	No case deformation or change in appearance. ΔL/L±10%	Refer to the reflow soldering condition. Go through 3 times.
Vibration test		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)

