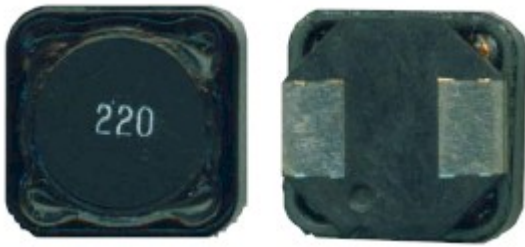


PCSS

SHIELDED SMD POWER INDUCTOR



Applications

- Power supply for VTRs.
- LCD televisions.
- Personal computers.
- Handhold communication equipment.
- DC/DC converters, etc.

Features

- High power, High saturation inductors.
- With magnetic shield against radiation.
- Directly connected electrode on ferrite core.
- Highly accurate dimensions for automatic mounting.

Inductance and rated current ranges

- PCSS124 2.2uH~1000uH 8.2~0.25A
- PCSS125 3.5uH~1000uH 6.5~0.40A
- PCSS127 1.0 uH~10000uH 10~0.42A

- Test equipments:
L: HP4284A LCR meter .
DCR tested by Milli-ohm meter.
Electrical specifications at 25°C .

Product Identification

PCSS 127 M T 101

(1) (2) (3) (4) (5)

(1)Type: Shielded SMD Power Inductor

(2)Dimensions(mm) : 127=12×12×8.0

(3)Tolerance: M=20%

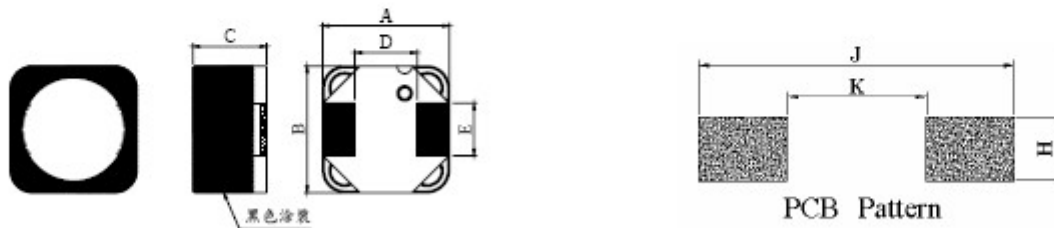
(4) Packaging style: T (Tape and Reel)

(5) Inductance: 1R0=1.0uH ,470=47uH ,101 =100uH

Characteristics:

- Rated Current: The current when inductance 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: $-25\sim 105^{\circ}\text{C}$.

Shape and Size:(Dimension are in mm)



Unit:m/m

Codes	A	B	C	D	E	H	J	K
PCSS124	12.0±0.5	12.0±0.5	4.5±0.5	5.0±0.2	5.0±0.2	5.4	12.8	4.6
PCSS125	12.0±0.5	12.0±0.5	6.0±0.5	5.0±0.2	5.0±0.2	5.4	12.8	4.6
PCSS127	12.0±0.5	12.0±0.5	8.0±0.5	5.0±0.2	5.0±0.2	5.4	12.8	4.6



Electrical Characteristics

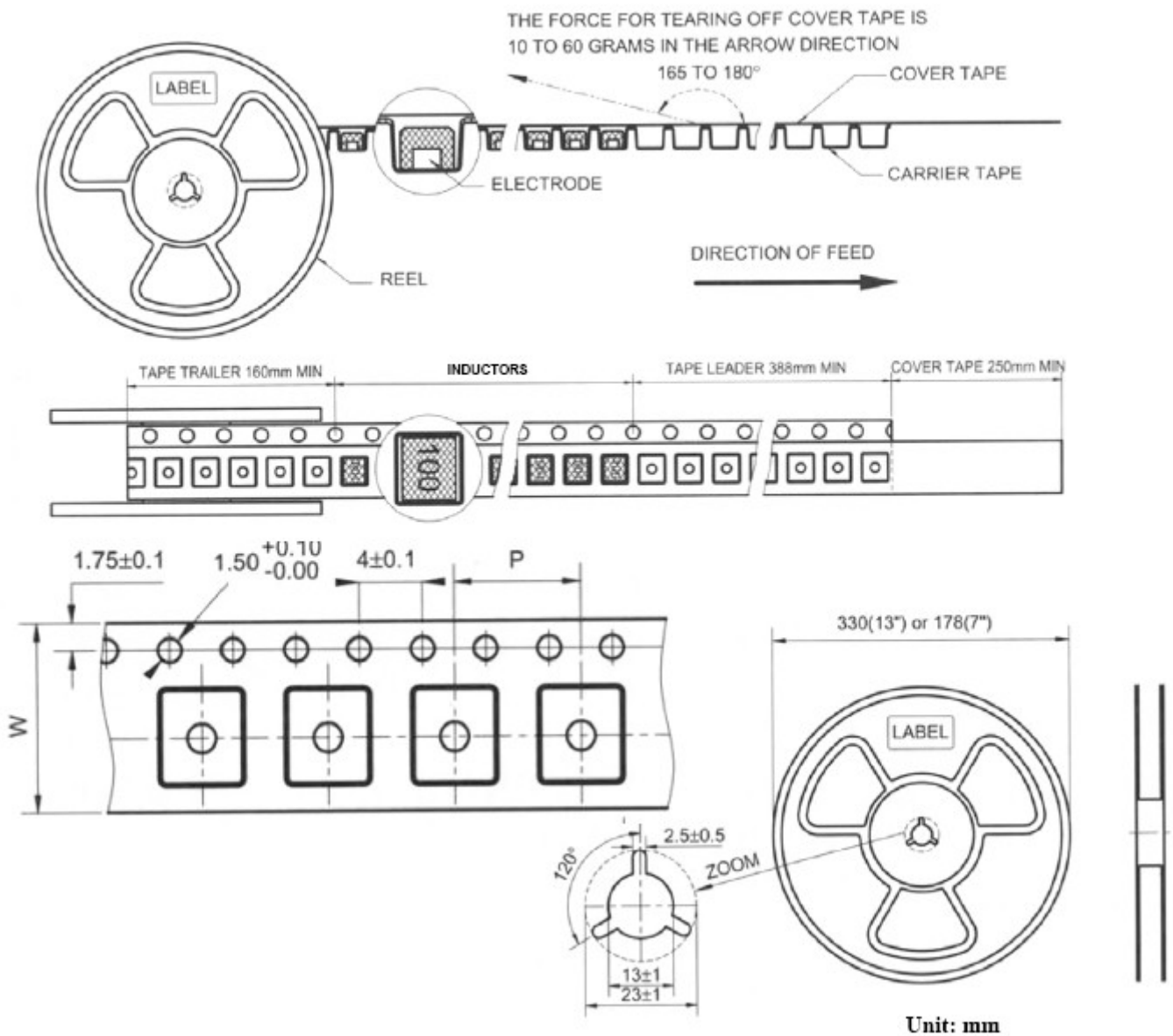
- 124 / 125 / 127 Type

Part No.	Tol.	L (uH)	DC Resistance (Ω) Max			Rated DC current (Amp) Max		
			124	125	127	124	125	127
1R0	M	1.0	-	-	0.007	-	-	10.00
1R2	M	1.2	-	-	0.007	-	-	9.80
1R5	M	1.5	-	-	0.012	-	-	9.50
2R2	M	2.2	0.015	-	0.012	8.20	-	8.00
2R4	M	2.4	-	-	0.012	-	-	8.00
3R3	M	3.3	-	-	0.013	-	-	7.80
3R5	M	3.5	-	0.020	0.014	-	6.50	7.50
3R9	M	3.9	0.015	-	-	6.50	-	-
4R7	M	4.7	0.018	-	0.016	5.70	-	6.80
6R1	M	6.1	-	-	0.018	-	-	6.60
6R5	M	6.5	-	-	0.019	-	-	6.60
6R8	M	6.8	0.023	-	0.019	4.90	-	6.60
7R6	M	7.6	-	-	0.020	-	-	5.90
8R2	M	8.2	0.026	-	0.021	4.60	-	5.50
100	M	10	0.034	0.031	0.022	4.50	4.00	5.40
120	M	12	0.038	0.034	0.024	4.00	3.50	4.90
150	M	15	0.050	0.039	0.027	3.20	3.30	4.50
180	M	18	0.057	0.042	0.039	3.10	3.00	3.90
200	M	20	0.065	-	-	3.00	-	-
220	M	22	0.066	0.048	0.043	2.90	2.80	3.60
270	M	27	0.080	0.066	0.046	2.80	2.30	3.40
330	M	33	0.097	0.073	0.065	2.70	2.10	3.00
390	M	39	0.132	0.085	0.073	2.10	2.00	2.75
470	M	47	0.160	0.098	0.100	1.90	1.80	2.50
560	M	56	0.190	0.139	0.110	1.80	1.70	2.30
680	M	68	0.220	0.148	0.140	1.50	1.50	2.10
820	M	82	0.260	0.168	0.160	1.30	1.40	1.95
101	M	100	0.308	0.204	0.220	1.20	1.30	1.70
121	M	120	0.380	0.224	0.250	1.10	1.10	1.60
151	M	150	0.530	0.322	0.280	0.95	1.00	1.42
181	M	180	0.620	0.364	0.350	0.85	0.90	1.30
221	M	220	0.700	0.509	0.390	0.80	0.80	1.16
271	M	270	0.870	0.574	0.560	0.60	0.75	1.06
331	M	330	0.990	0.734	0.640	0.50	0.68	0.95
391	M	390	-	0.854	0.700	-	0.65	0.88
471	M	470	-	1.064	0.980	-	0.58	0.79
561	M	560	-	1.176	1.070	-	0.54	0.73
681	M	680	-	1.646	1.460	-	0.48	0.67
821	M	820	-	1.974	1.640	-	0.43	0.60
102	M	1000	3.410	2.562	1.820	0.25	0.40	0.55

- Measuring Freq:

1.0~8.2uH @100KHz 0.25V ; 10~1000uH @ 1KHz 0.25V

Tape and Reel specifications



Series	Tape size		Parts Per Reel
	W	P	13"
PCSS124	24	16	500
PCSS125	24	16	500
PCSS127	24	16	500



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 +125°C.
3.	Operating temperature range	Temperature range: -25°C to +105°C.

Environmental test

Test Items	Specifications	Test Conditions / Test Methods
1. High temperature Storage test	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	Temperature 85±2°C, Time: 48±2 hours, Tested after 1hour at room temperature.
2. Low temperature Storage test		Temperature -40°C, Time: 48±2 hours, Tested after 1hour at room temperature.
3. Humidity test		Temperature 40±2°C, 90~95% relative humidity Time: 96±2 hours, apply rated current, Tested after 1hour 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 3±0.5 seconds.
2. Heat endurance of Reflow soldering	No case deformation or change in appearance. $\Delta L/L \leq 10\%$	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

