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lead-free

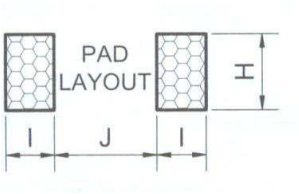
SPECIFICATIONS

PCSH-Serie

Version May 2018

Shielded SMD Power Inductor

PCSH127



■Features

- High power, High saturation inductors
- With magnetically shielded against radiation
- Directly connected electrode on ferrite core
- Highly accurate dimensions for surface mounting

■Applications

- Power Supply for VTRs.
- LCD Televisions
- Personal Computers
- Handheld Communication Equipment
- DC/DC Converters, etc.

■Characteristics

- Rated DC Current: The DC current at which the inductance becomes 30% lower than its initial value . (Ta=25°C)
- Operating temperature range: -40～125°C
- Test equipment:

  L: HP4284A or HP4285A LCR meter

  DCR: Milli-ohm meter
- Electrical specifications at 25°C

■Dimensions

Unit: mm

Type	H1 max.	H2 max.	H3 max.	H	I	J
PCSH127			8.0	5.4	2.9	7.0

■Product Identification

PCSH	127	M	T	101
Product Type	Dimensions (AxBxC)	Inductor Tolerance	Packaging Style	Inductance
PCSH :High Current	127: 12×12×8.0	M: ±20% N: ±30%	T: Tape and Reel	2R2: 2.2μH 470: 47μH 101: 100μH

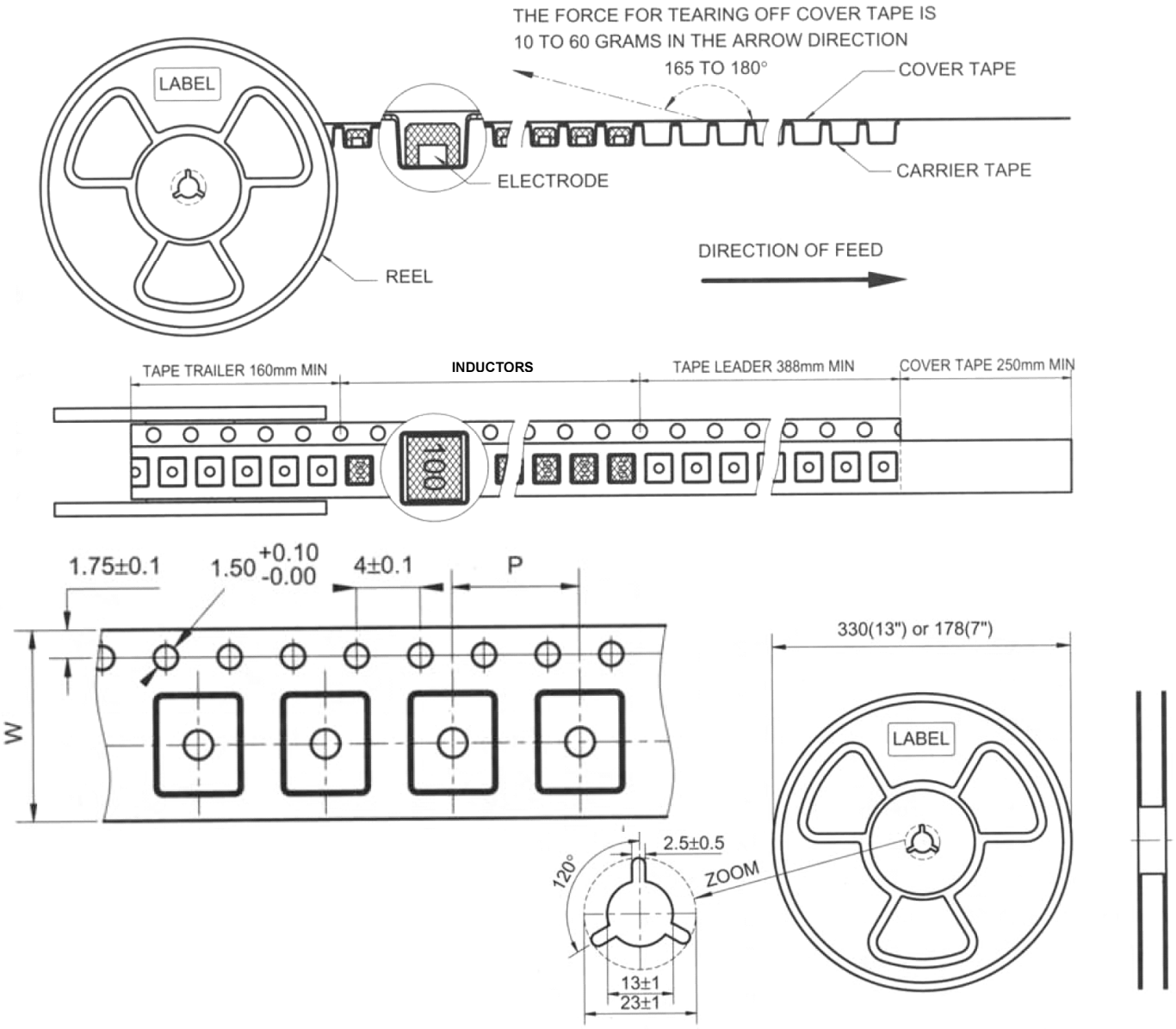
Edition : REV.B8-16
Revision: 04-May-2018

■High Current Electrical Characteristics

PCSH127 Type

Codes	L (uH)	Tolerance	Test Condition	DCR (Ω) Max	IDC (A) Max
2R2	2.2	M	100KHz, 0.25V	0.007	25.5
4R7	4.7	M	100KHz, 0.25V	0.016	15.9
5R6	5.6	M	100KHz, 0.25V	0.020	14.0
6R8	6.8	M	100KHz, 0.25V	0.021	13.3
8R2	8.2	M	100KHz, 0.25V	0.023	12.2
100	10	M	100KHz, 0.25V	0.024	11.2
150	15	M	100KHz, 0.25V	0.031	9.00
180	18	M	100KHz, 0.25V	0.035	5.10
220	22	M	100KHz, 0.25V	0.040	7.57
330	33	M	100KHz, 0.25V	0.070	6.22
390	39	M	100KHz, 0.25V	0.075	4.50
470	47	M	100KHz, 0.25V	0.080	5.28
560	56	M	100KHz, 0.25V	0.130	4.50
680	68	M	100KHz, 0.25V	0.105	4.26
820	82	M	100KHz, 0.25V	0.143	3.80
101	100	M	100KHz, 0.25V	0.163	3.52
121	120	M	100KHz, 0.25V	0.170	1.90
151	150	M	100KHz, 0.25V	0.247	3.01
221	220	M	100KHz, 0.25V	0.376	2.36
331	330	M	100KHz, 0.25V	0.574	2.00
391	390	M	100KHz, 0.25V	0.650	1.50
471	470	M	100KHz, 0.25V	0.861	1.64
681	680	M	100KHz, 0.25V	1.080	1.38
821	820	M	100KHz, 0.25V	1.470	1.26
102	1000	M	100KHz, 0.25V	1.660	1.14

■Tape and Reel specifications



Unit: mm

Type	Tape size		Parts Per Reel
	W	P	13″
PCSH127	24	16	500

■ SMT 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 -25±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
Solder ability test	Terminal area must have 90% minimum solder coverage.	Dip pads in flux then dip in solder pot (SnCuNi) 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. △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)