Version: 2.0

SPECIFICATION FOR APPROVAL

ITEM P/N	PSPMAC1045H-101M-ANP	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

CUSTOMER :

CUSTOMER P/N :

DESCRIPTION : SMD INDUCTOR

P/N : PSPMAC1045H-101M-ANP

REVISION NO. : Version: 2.0

DATE : 2020-5-28

NOTES : STANDARD

DOCUMENTED	
APPROVED	Kevin
CHECKED	Ben
PREPARED	Peter

CUSTOMER APPROVAL

company seals

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SPECIFICATION FOR APPROVAL

ITEM P/N	**PSPMAC1045H-101M-ANP**	**TEST INSTRUMENT**	**Zentech-3305 / Zentech502BC**
PRODUCT	**SMD Inductor**	**TEST FREQUENCY**	**100 kHz / 1.0V**

Version	REVISON ITEM	BEFORE REVISON	AFTER REVISON	DATE
1.0	First Version			2019-10-9
2.0	Second Version	F 11.2Ref. G 3.50Ref. H 2.90Ref.	F 12.5Ref. G 5.50Ref. H 4.00Ref.	2020-5-28

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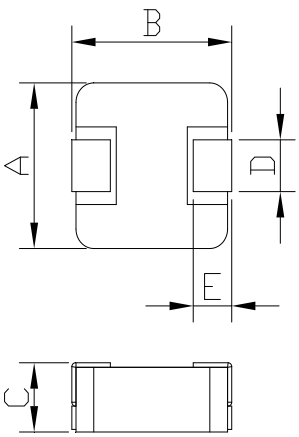
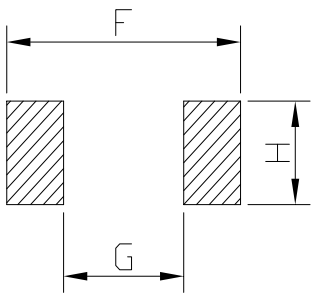
COIL SPECIFICATION

ITEM P/N	PSPMAC1045H-101M-ANP	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

ASSEMBLY





RECOMMANED
LAND PATTERN

1045	Dimensions
A	10.2±0.3
B	10.6 ± 1
C	4.5 MAX
D	2.0 ± 0.5
E	3.0 ± 0.5
F	12.5Ref.
G	5.50Ref.
H	4.00Ref.

EXPLANATION OF PART NUMBERS

P S P M A C	1 0 4 5 H	-	1 0 1 M	-	A N P
Serial Codes	Size		Inductance		Descripti

ELECTRICAL CHARACTERISTICS

ITEM P/N	@ 25 ℃ Ambient Temperture					
	INDUCTANCE		Irms (A)Max.	Isat (A) Max.	DCR (mΩ) Typical	DCR (mΩ) Max.
	Lo (μH)	TOLERANCE				
PSPMAC1045H-101M-ANP	100.00	±20%	2	4	250.0	300.0

- All test Data is referenced to 25℃ ambient
- Typical Heat Rating DC Current would cause an approximately △T of 40℃
- Typical Saturation DC Current would cause Lo to drop approximately 30%
- Operation Temperature Range : -25℃ ~ 125℃
- The Part temperature (ambient + △T) should not exceed 125℃ under worst case operating conditions.
- Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all effect the part temperature. Part temperature should be verified in the end application.

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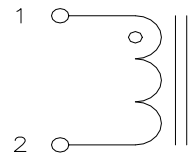
CHARACTERISTICS

ITEM P/N	PSPMAC1045H-101M-ANP	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

CONNECTIONS

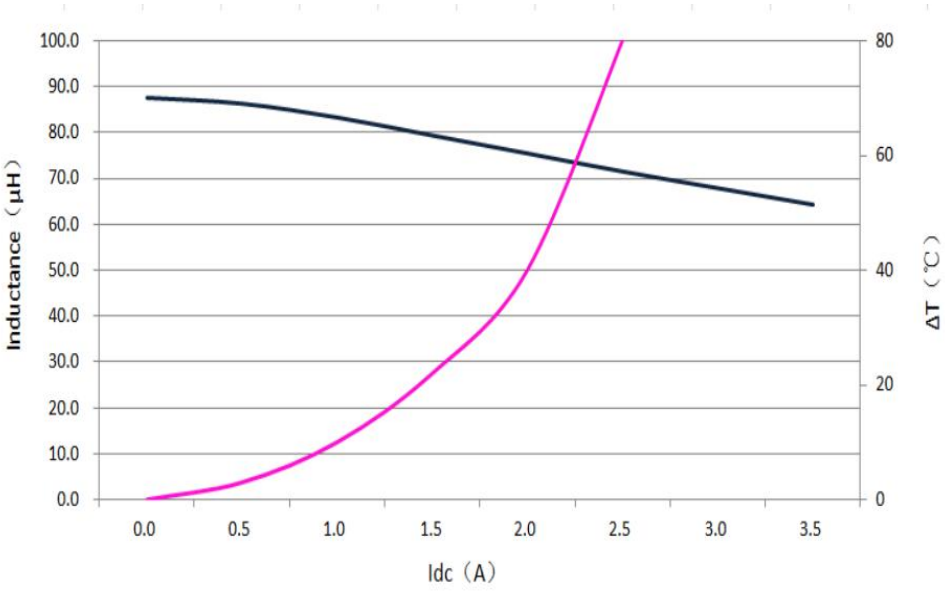


MARKING

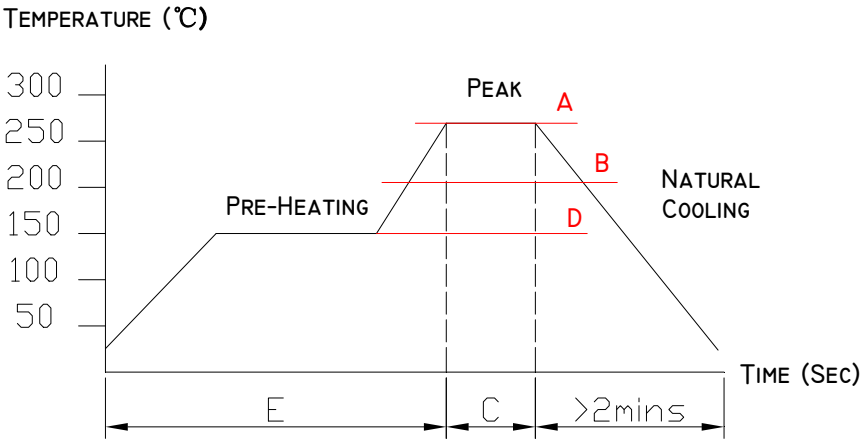
◎ Inductor Contents ONE (1) Set(s) of Coil

◎ DC/AC Currnet Shall Be Introduced By Any One of Two Pads

PERFORMANCE CURVES



Reflow Solderings



A	260℃
B	230℃
C	10 Sec
D	150℃
E	60~240 Sec

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CHARACTERISTICS

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PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

MECHANICAL RELIABILITY

TEST	Specification & Requirement	Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 95%	Solder heat proof: Preheating: 180 ±10℃ 90 seconds Soldering: 255 ±5℃ for 3 ±1 sec
Shock	Inductance change within ± 5% Without mechanical damage	Drop down with 981m/s2 (100G) shock Attitude upon a rubber block method shock testing machinem, 3 tests.
Vibration	Inductance change within ± 5% Without mechanical damage	Vibration frequency: 10Hz to 55Hz to 10Hz 60 seconds cycle Vibration time: 2 hours

ENDURANCE RELIABILITY

TEST	Specification & Requirement	Method Used
Thermal Shock	Inductance change within ± 5% Without mechanical damage	-55℃, (30 mins) -> room temp. (5 mins) -> 125℃, (30 mins) -> room temp. (5 mins) 100 cycles
Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 85℃ ambient Duration: 1000 hrs
Humidity Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 60℃ ambient Humidity: 90~95% Duration: 1000 hrs
Low Temp. Storing	Inductance change within ± 5% Without mechanical damage	Storing Temp. -55 ±2 ℃ for total 1,000 +4/-0 hours
High Temp. Storing	Ind‹Ben mechanical damage	Storing Temp. 125 ±2 ℃ for total 1,000 +4/-0 hours

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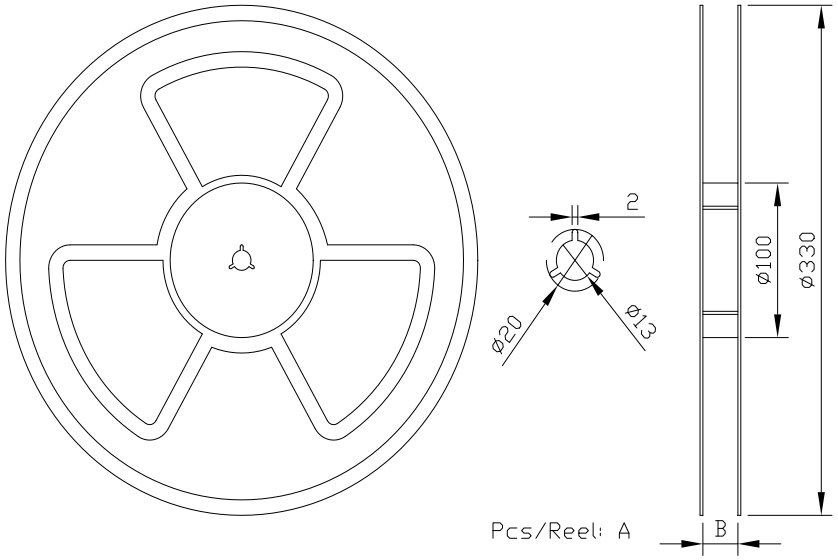
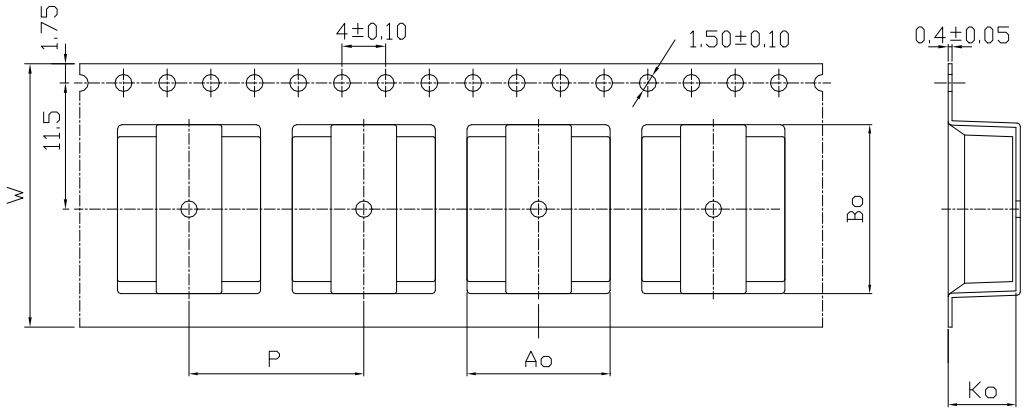
PACKING FOR SMD

ITEM P/N	PSPMAC1045H-101M-ANP	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PACKAGING(unit: mm)

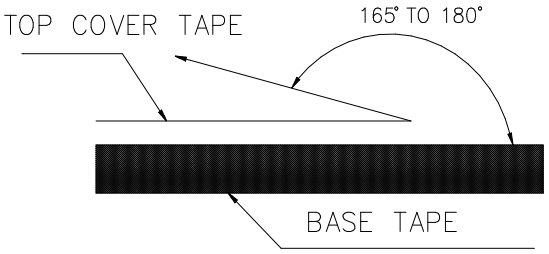


A	B	Ao	Bo	Ko
800	25	11.0 ± 0.1	12.6 ± 0.1	5.1 TYP



W	P
24	16

Typical Pulling Force:
10 grams



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TESTING REPORT

ITEM P/N	PSPMAC1045H-101M-ANP	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

TEST DATA

SPE / No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)			DCR Max(mΩ)	INDUCTANCE L(0) ± 20%	4 A
	10.2±0.3	**10.6 ± 1**	**4.5 MAX**	**2.0 ± 0.5**	**3.0 ± 0.5**			**300**	**100.00**	**≈70% L(0)**
1	10.17	11.15	4.24	3.03	2.38			279.00	99.15	PASS
2	10.21	11.23	4.15	3.01	2.36			282.00	98.65	PASS
3	10.16	11.18	4.20	3.04	2.37			269.00	98.74	PASS
4	10.13	11.16	4.22	3.01	2.36			281.00	98.62	PASS
5	10.19	11.23	4.26	3.03	2.34			277.00	101.20	PASS
6	10.23	11.21	4.28	3.01	2.36			265.00	101.40	PASS
7	10.18	11.23	4.25	3.03	2.35			263.00	101.60	PASS
8	10.20	11.18	4.26	3.01	2.34			259.00	95.64	PASS
9	10.23	11.21	4.32	3.02	2.36			283.00	98.67	PASS
10	10.19	11.23	4.29	3.03	2.34			285.00	94.58	PASS
$\bar{X}$	10.19	11.20	4.25	3.02	2.36	0.00		274.30	98.83	
R	0.10	0.08	0.17	0.03	0.04	0.00		26.00	7.02	

◎ All test Data is referenced to 25℃ ambient

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ANNOUNCEMENTS

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2 运输设备（汽车，轨道交通产品，船舶等）
3 航空，航天设备
4 发电控制设备
5 核动力相关设备
6 爆炸引燃控制设备
7 交通控制设备
8 关系到国防安全的设备
9 防灾赈灾设备
10 各种安规设备
11 紧急救护设备
12 其他被认定为特殊用途的设备

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