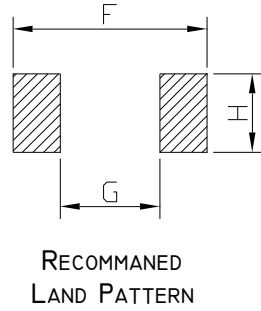
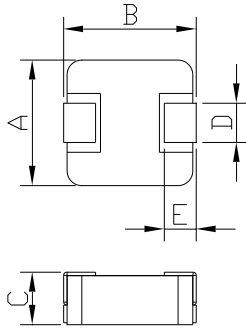


ITEM P/N	ESPC-1040-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PACKING DIMENSIONS (mm)RECOMMANED
LAND PATTERN

ESPC 1040	Dimensions
A	10.0 ± 0.3
B	11.5 MAX
C	4.0 MAX
D	2.8 ± 0.5
E	2.0 ± 0.5
F	13 Typ
G	6 Typ
H	4 Typ

EXPLANATION OF PART NUMBERS

1	2	3	4	5	6	7	8	9	10	11	12		
E	S	P	C	-	1	0	4	0	-	1	R	0	M
<u>Serial Codes</u>					<u>Size</u>			<u>Inductance Code</u>					

ELECTRICAL CHARACTERISTICS

P/N	L0 Inductance μH ±20% @0A	DCR (mΩ)		Heat Rating Current	Saturation Current
		[Typical]	[Max]	Idc (AMP) Typical	Isat (AMP) Typical
ESPC-1040-R19M	0.19	0.50	0.70	44	44
ESPC-1040-R22M	0.22	0.60	0.80	38	42
ESPC-1040-R24M	0.24	0.70	0.80	38	38
ESPC-1040-R36M	0.36	0.85	0.95	35	35
ESPC-1040-R41M	0.41	1.04	1.15	33	32
ESPC-1040-R47M	0.47	1.20	1.40	32	32
ESPC-1040-R56M	0.56	1.30	1.50	30	30
ESPC-1040-R68M	0.68	1.60	1.80	25	30
ESPC-1040-R78M	0.78	1.60	1.80	25	25
ESPC-1040-R82M	0.82	2.20	2.50	21	21
ESPC-1040-1R0M	1.0	2.20	2.50	21	21
ESPC-1040-1R8M	1.8	4.50	5.00	15	15
ESPC-1040-2R0M	2.0	5.20	5.80	14	14
ESPC-1040-2R2M	2.2	5.50	6.30	14	16
ESPC-1040-2R5M	2.5	8.20	9.00	12	16
ESPC-1040-3R3M	3.3	8.20	9.00	12	14
ESPC-1040-4R7M	4.7	12.90	14.20	9.5	9.5
ESPC-1040-5R6M	5.6	15.50	16.50	9.2	9.2
ESPC-1040-6R8M	6.8	17.50	19.30	9.0	9.0
ESPC-1040-8R2M	8.2	22.00	24.00	8.3	8.3

- ⊙ All test Data is referenced to 25°C ambient
- ⊙ Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
- ⊙ Typical Saturation DC Current would cause Lo to drop approximately 30%
- ⊙ Operation Temperature Range : -55°C ~ 125°C
- ⊙ The Part temperature (ambient + ΔT) should not exceed 125°C under worst case operating conditions.
- ⊙ Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions

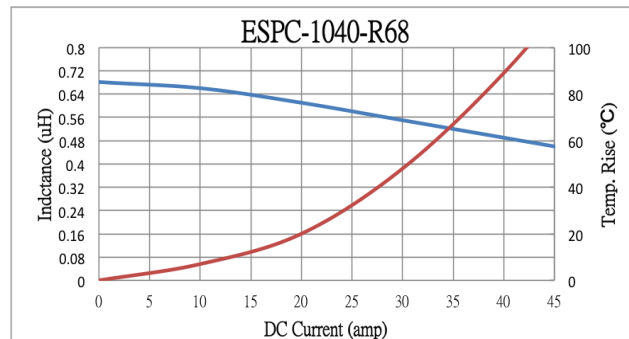
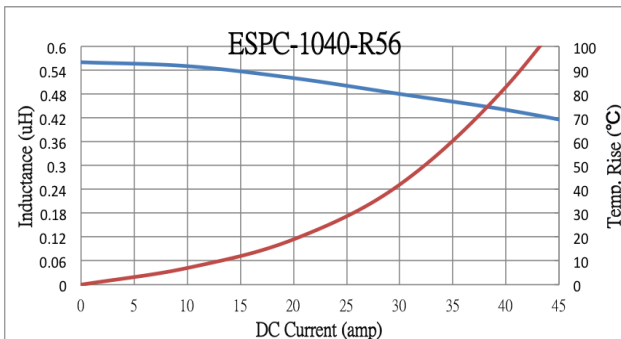
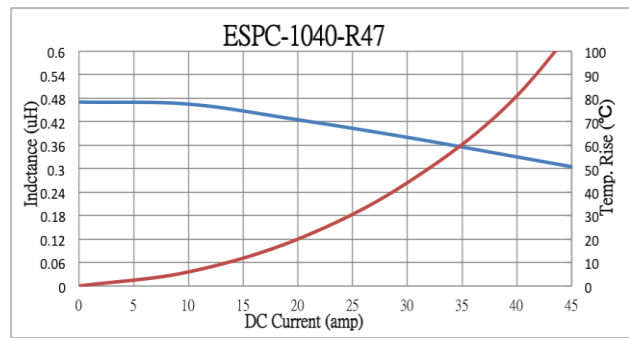
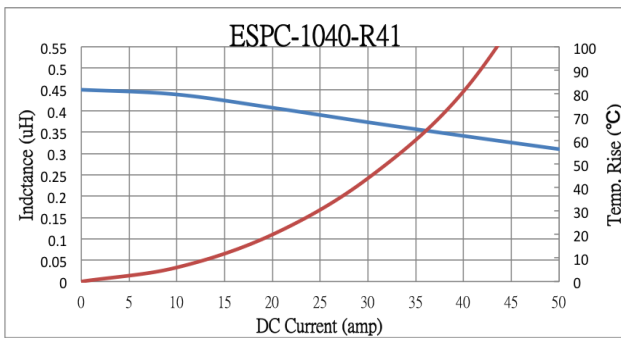
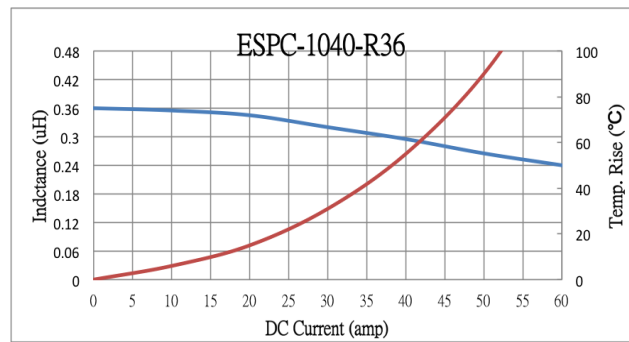
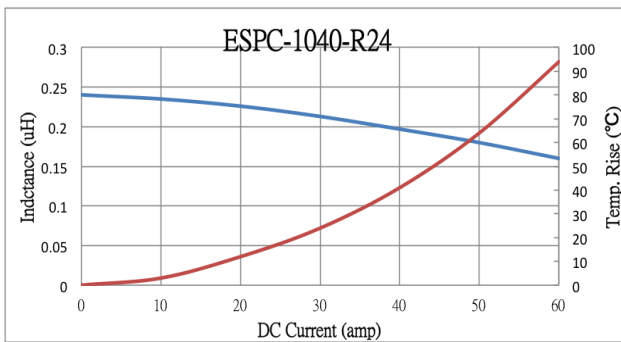
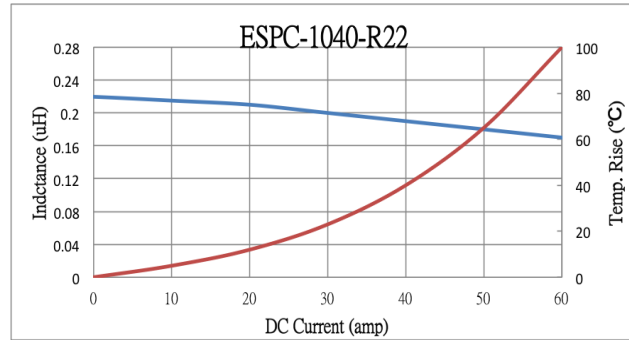
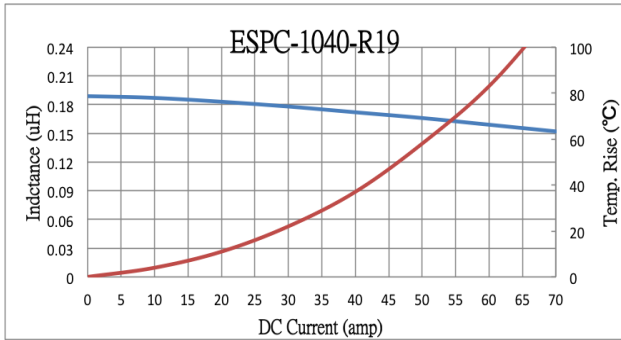
all effect the part temperature. Part temperature should be verified in the end application.

Page: 1



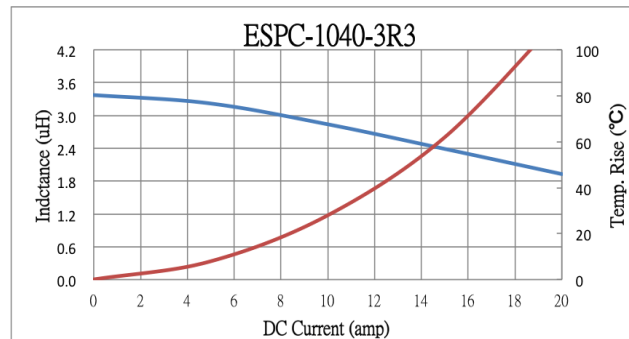
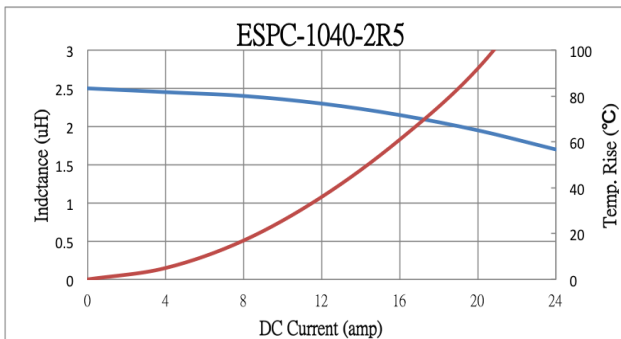
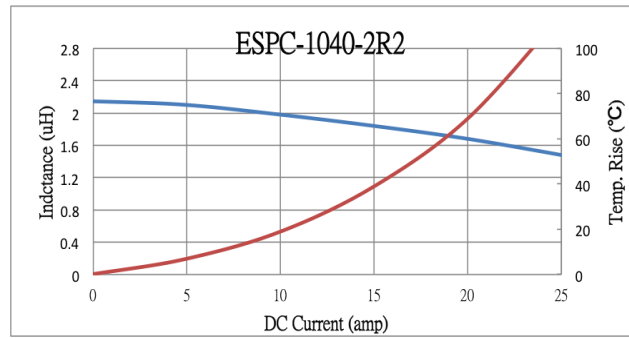
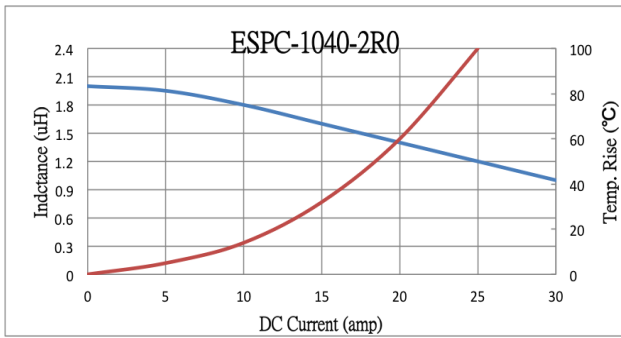
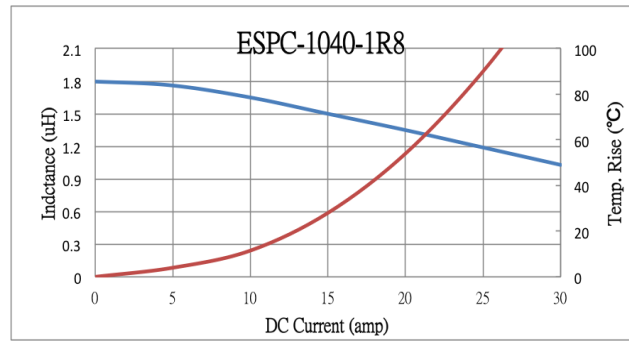
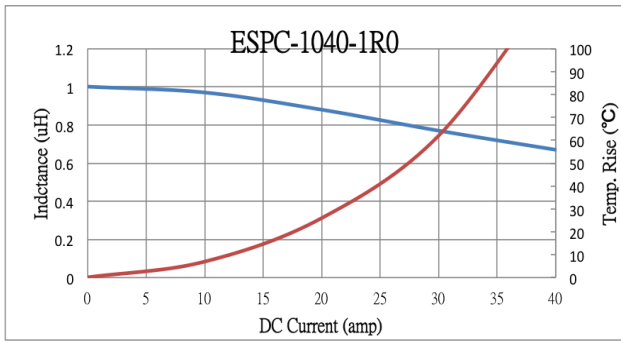
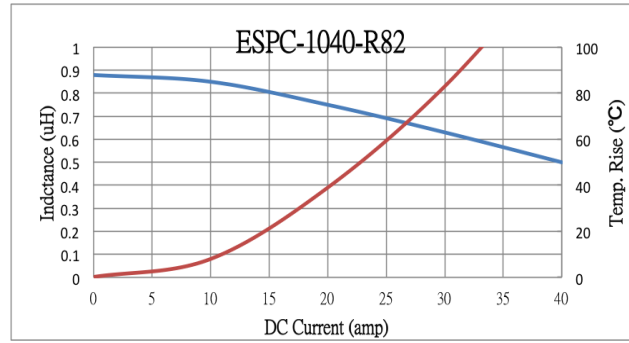
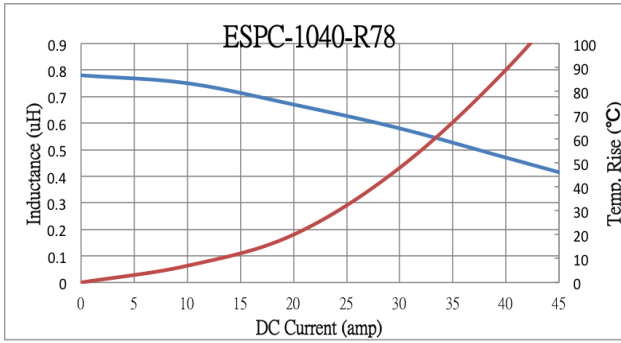
ITEM P/N	ESPC-1040-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PERFORMANCE CURVES



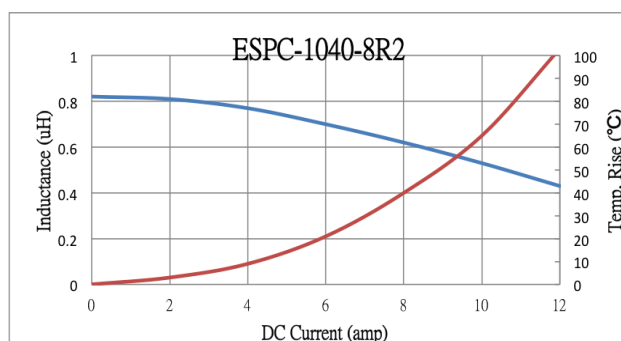
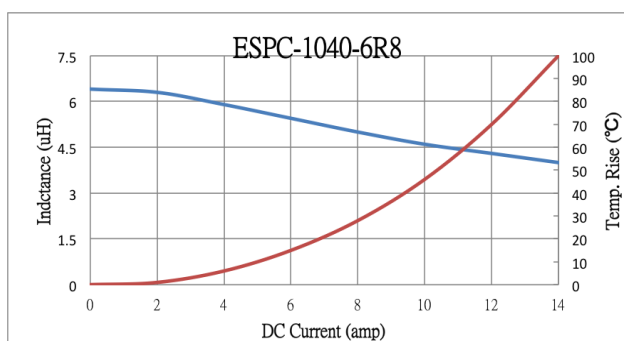
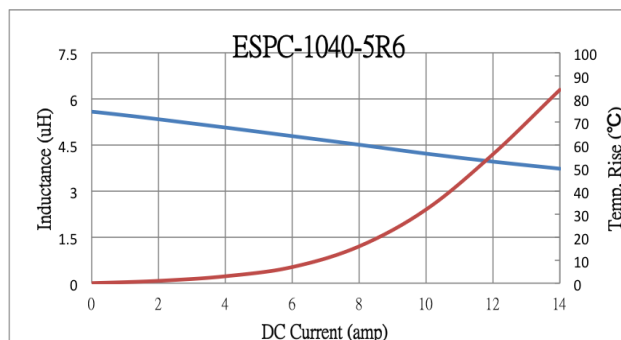
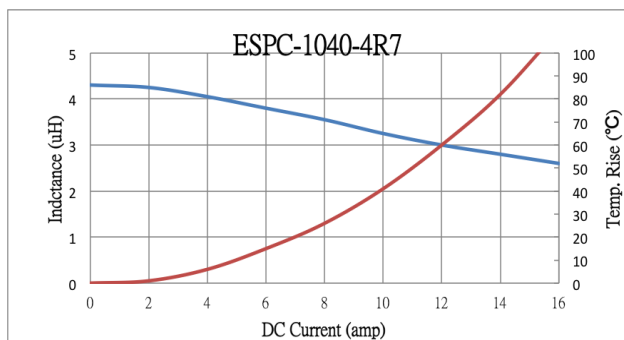
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PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PERFORMANCE CURVES

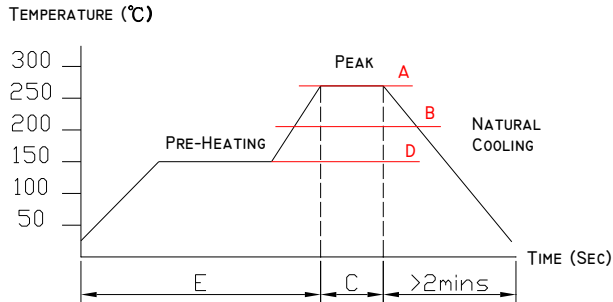


ITEM P/N	ESPC-1040-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
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PERFORMANCE CURVES



ITEM P/N	ESPC-1040-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

RECOMMENDED SOLDERING TEMP. GRAPH

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

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°C 90 seconds Soldering: 255 ±5°C for 3 ±1 sec
Shock	Inductance change within ± 5% Without mechanical damage	Drop down with 981m/s ² (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

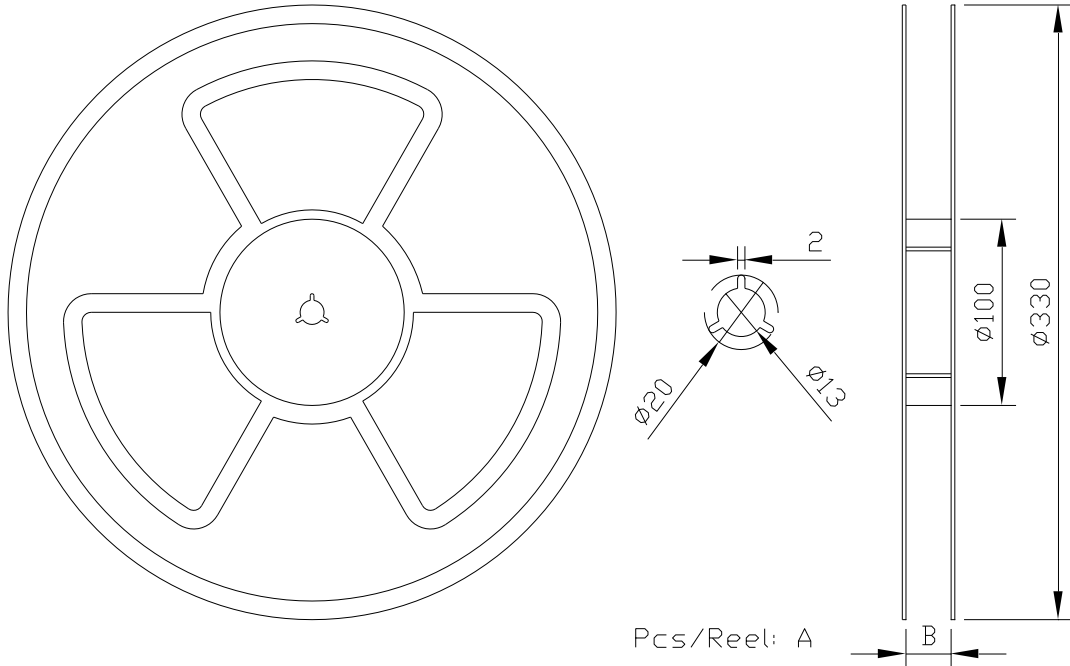
TEST	Specification & Requirement	Method Used
Thermal Shock	Inductance change within ± 5% Without mechanical damage	-55°C, (30 mins) -> room temp. (5 mins) -> 125°C, (30 mins) -> room temp. (5 mins) 100 cycles
Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @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

PACKING FOR SMD

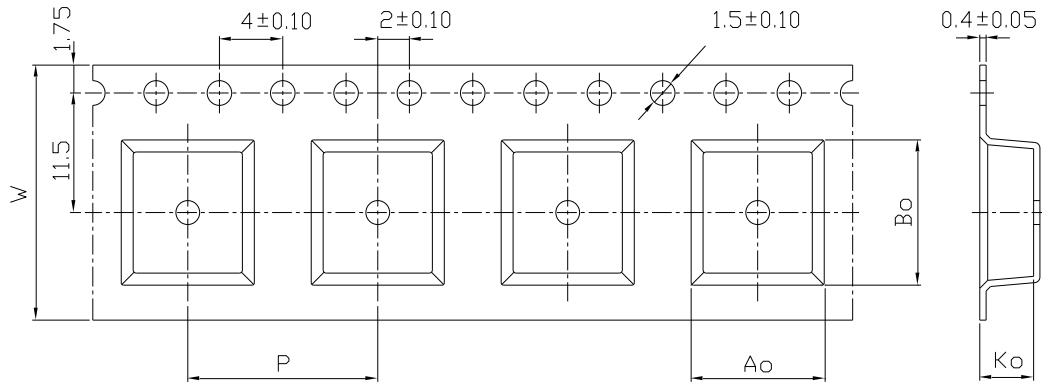
**RoHS
COMPLIANT**

ITEM P/N	ESPC-1040-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

CARRIERTAPEING REEL & CARRIER MATERIALS (PAPER PLASTICS) UNIT : (mm)



A	B	Ao	Bo	Ko
800	25	11.0 ± 0.1	12.6 ± 0.1	4.1 TYP



W	P
24	16

Typical Pulling Force:

10 grams

