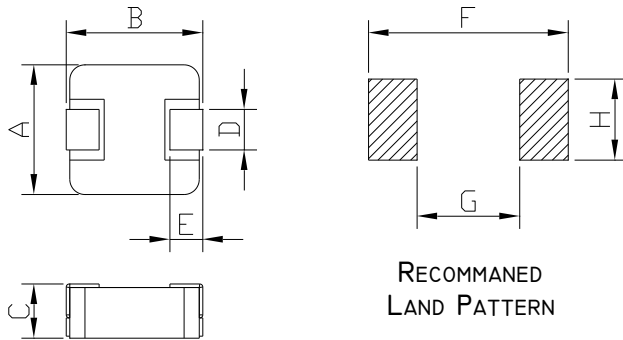


ITEM P/N	ESPC-1050-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PACKING DIMENSIONS (mm)

ESPC 1050	Dimensions
A	10.0 ± 0.3
B	11.5 MAX
C	5.0 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	5	0	-	1	R	0	M
<u>Serial Codes</u>			<u>Size</u>			<u>Inductance Code</u>							

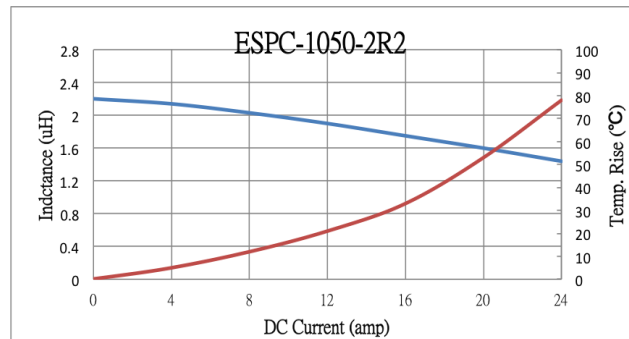
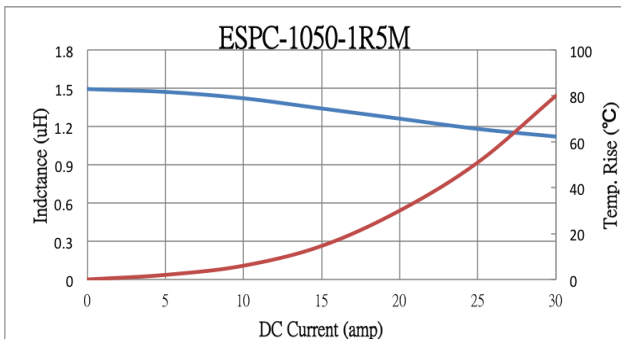
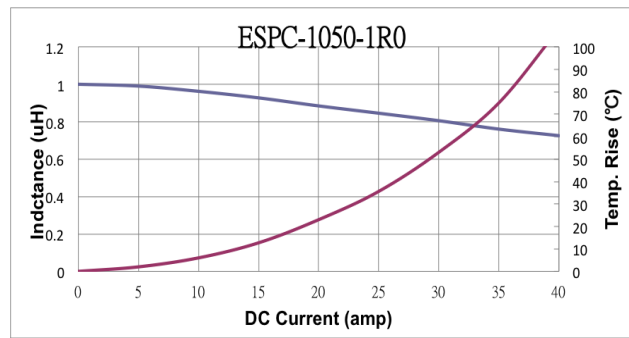
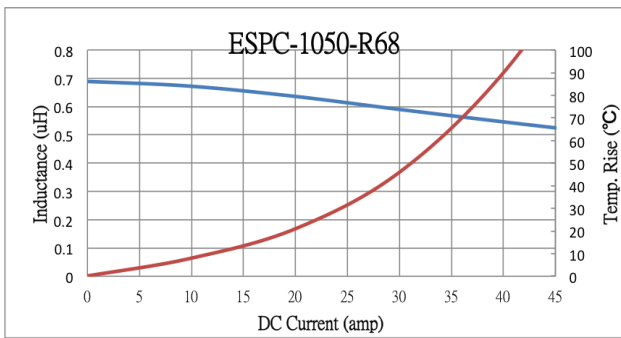
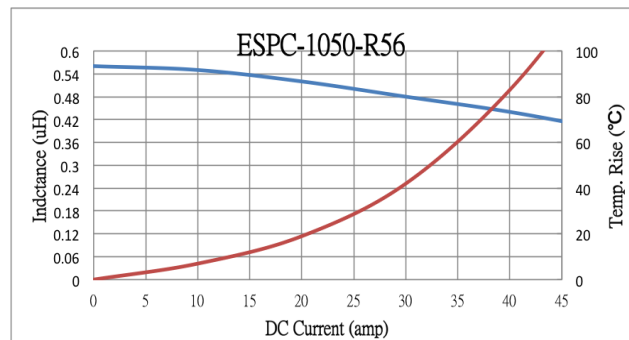
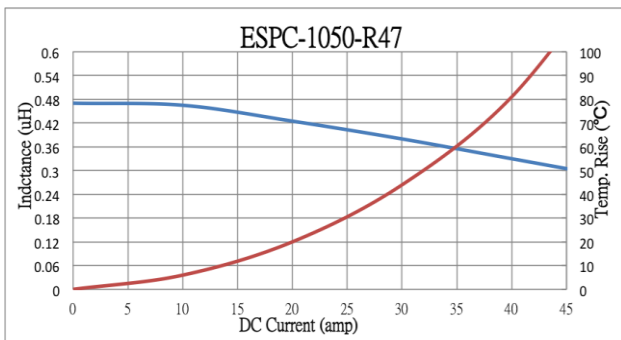
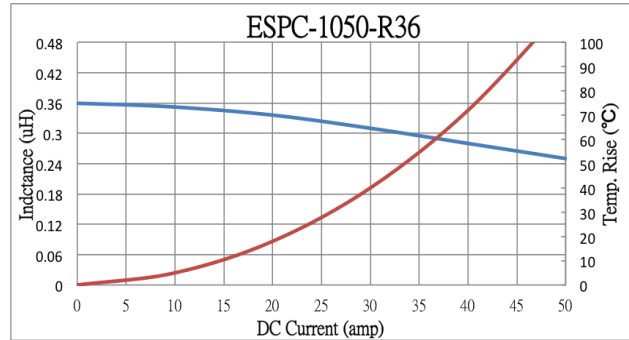
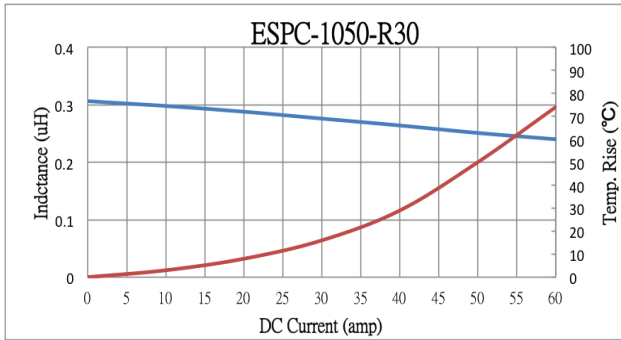
ELECTRICAL CHARACTERISTICS

P/N	L0 Inductance μH ±20% @0A	DCR (mΩ)		Heat Rating Current	Saturation Current
		[Typical]	[Max]	Idc (AMP) Typical	Isat (AMP) Typical
ESPC-1050-R30M	0.30	0.60	0.80	38	50
ESPC-1050-R36M	0.36	0.68	0.82	30	32
ESPC-1050-R47M	0.47	1.20	1.40	32	32
ESPC-1050-R56M	0.56	1.40	1.60	30	30
ESPC-1050-R68M	0.68	1.60	1.80	25	30
ESPC-1050-1R0M	1.0	2.20	2.50	25	40
ESPC-1050-1R5M	1.5	2.20	3.00	20	30
ESPC-1050-2R2M	2.2	4.00	4.60	17	20
ESPC-1050-2R8M	2.8	5.60	6.50	12	18
ESPC-1050-100M	10.0	21.00	25.20	7.2	10
ESPC-1050-150M	15.0	29.30	35.00	5.9	8

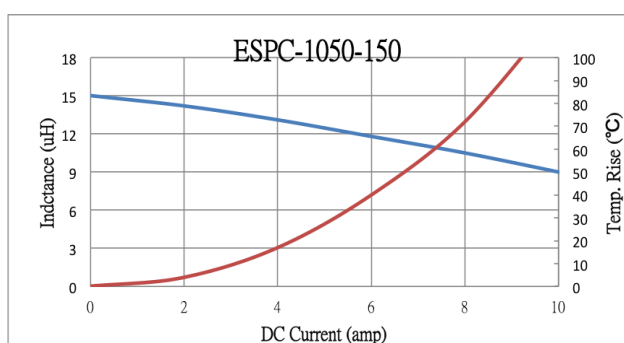
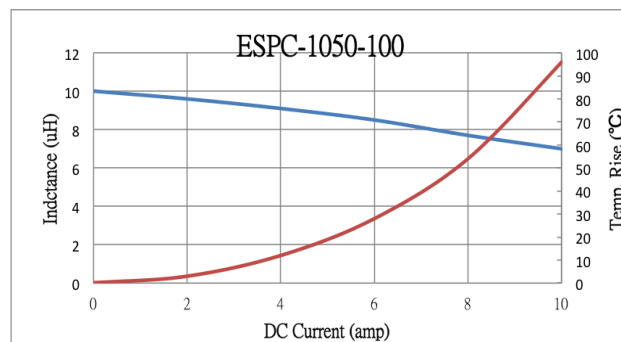
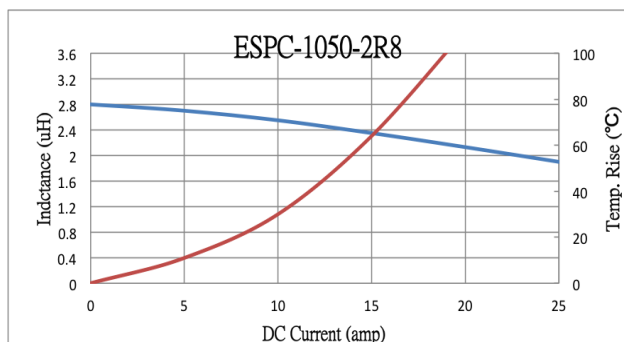
- ⊙ All test Data is referenced to 25°C ambient
- ⊙ Typical Heat Rating DC Current would cause an approximately ΔT of 40°C
- ⊙ Typical Saturation DC Current would cause Lo to drop approximately 30%
- ⊙ Operation Temperature Range : -55°C ~ 125°C
- ⊙ The Part temperature (ambient + ΔT) should not exceed 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.

ITEM P/N	ESPC-1050-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

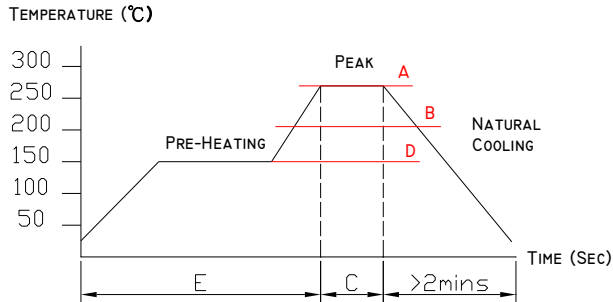
PERFORMANCE CURVES



ITEM P/N	ESPC-1050-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

PERFORMANCE CURVES

ITEM P/N	ESPC-1050-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

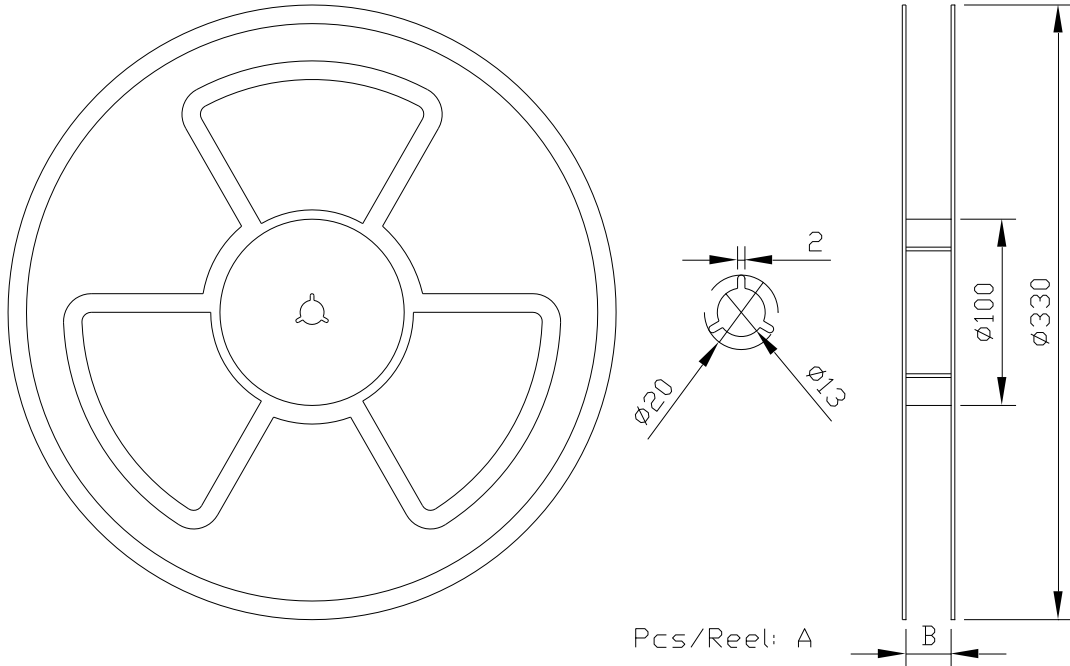
TEST	Specification & Requirement	Method Used
Thermal Shock	Inductance change within ± 5% Without mechanical damage	-55°C, (30 mins) -> room temp. (5 mins) -> 125°C, (30 mins) -> room temp. (5 mins) 100 cycles
Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @ 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

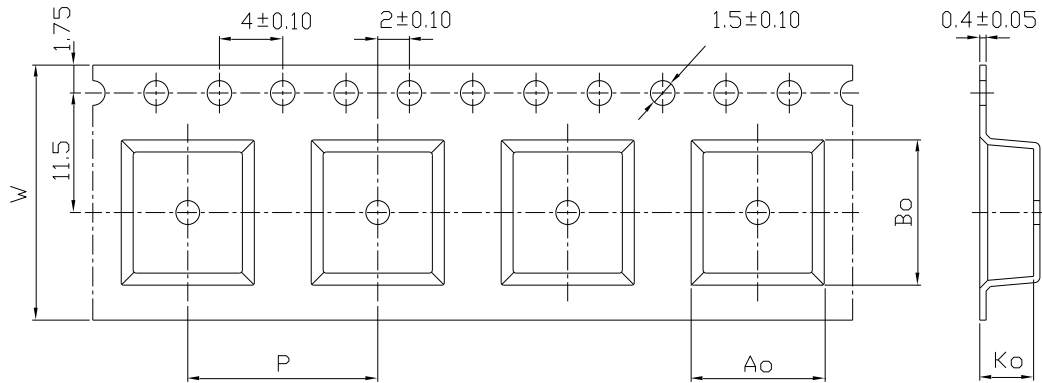
**RoHS
COMPLIANT**

ITEM P/N	ESPC-1050-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
500	25	11.0 ± 0.1	12.6 ± 0.1	5.2 TYP



W	P
24	16

