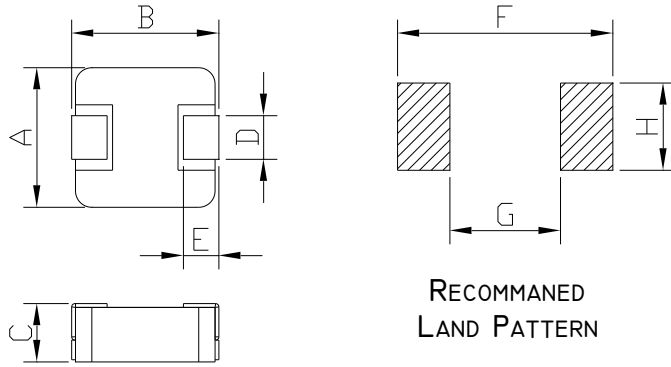


ITEM P/N	ESPA-0618-SERIES	TEST INSTRUMENT	Zentech-3305 / Zentech502BC
PRODUCT	SMD Inductor	TEST FREQUENCY	100 kHz / 1.0V

**PACKING DIMENSIONS (mm)**

ESPA 0618	Dimensions
A	6.6 ± 0.3
B	7.1 ± 0.3
C	1.8 MAX
D	3.0 ± 0.3
E	1.6 ± 0.5
F	7.4 Typ
G	3.7 Typ
H	3.5 Typ

**EXPLANATION OF PART NUMBERS**

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

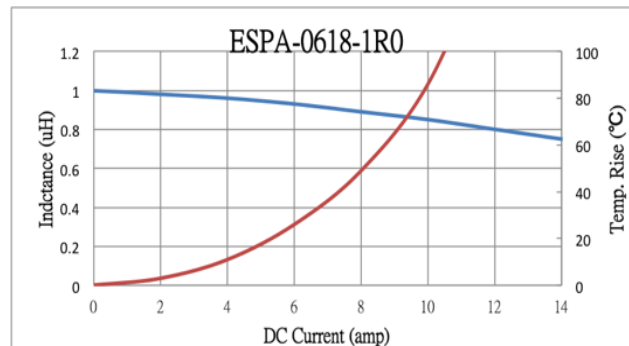
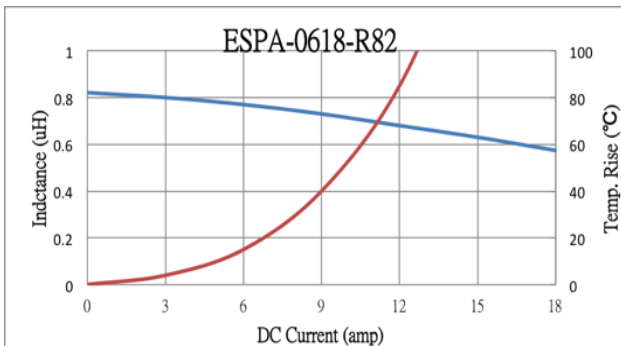
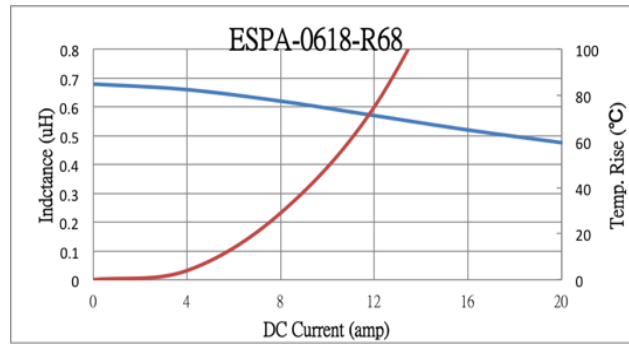
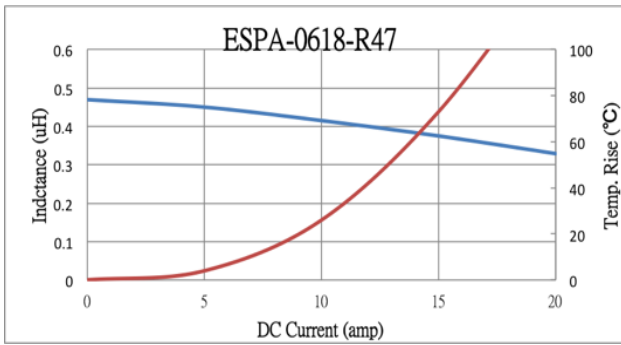
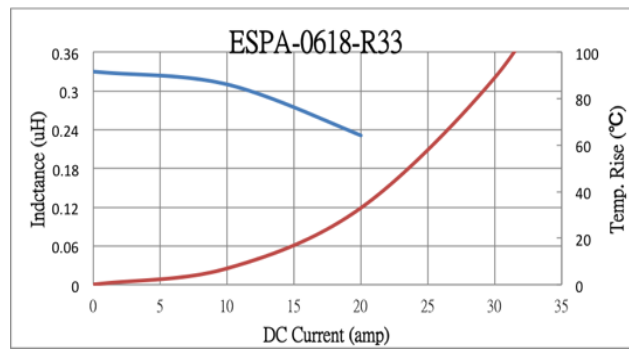
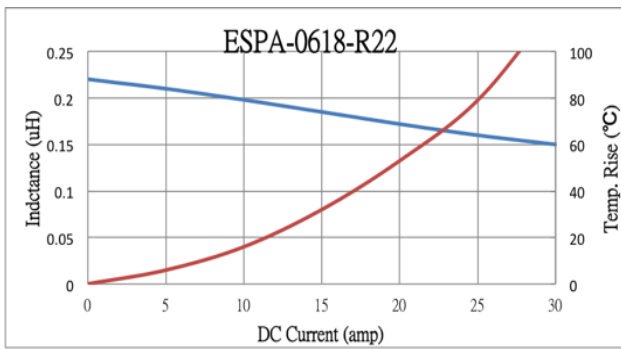
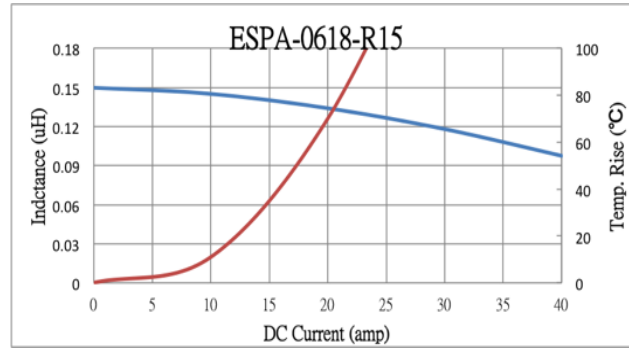
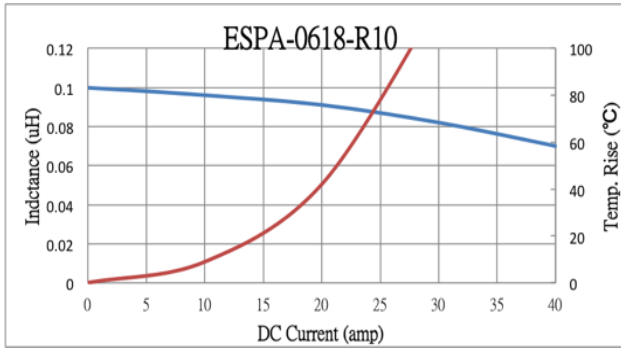
**ELECTRICAL CHARACTERISTICS**

P/N	L0 Inductance μH ±20% @0A	DCR (mΩ)		Heat Rating Current	Saturation Current
		[Typical]	[Max]	Idc (AMP) Typical	Isat (AMP) Typical
ESPA-0618-R10M	0.10	3.0	3.5	18	40
ESPA-0618-R15M	0.15	4.7	5.2	15	38
ESPA-0618-R22M	0.22	5.3	5.7	14	26
ESPA-0618-R33M	0.33	6.6	7.0	12	18
ESPA-0618-R47M	0.47	8.4	9.3	11	18
ESPA-0618-R68M	0.68	12.7	13.9	9	17
ESPA-0618-R82M	0.8	13.8	15.9	8	17
ESPA-0618-1R0M	1.0	17.5	18.3	7	14
ESPA-0618-1R5M	1.5	32.6	34.0	4	11.5
ESPA-0618-2R2M	2.2	40.3	46.0	3.75	11
ESPA-0618-2R5M	2.5	49.9	52.4	3.50	10.4
ESPA-0618-3R3M	3.3	56.2	60.1	3.25	10
ESPA-0618-4R7M	4.7	76.6	78.0	3.0	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.

<b>ITEM P/N</b>	<b>ESPA-0618-SERIES</b>	<b>TEST INSTRUMENT</b>	<b>Zentech-3305 / Zentech502BC</b>
<b>PRODUCT</b>	<b>SMD Inductor</b>	<b>TEST FREQUENCY</b>	<b>100 kHz / 1.0V</b>

## PERFORMANCE CURVES

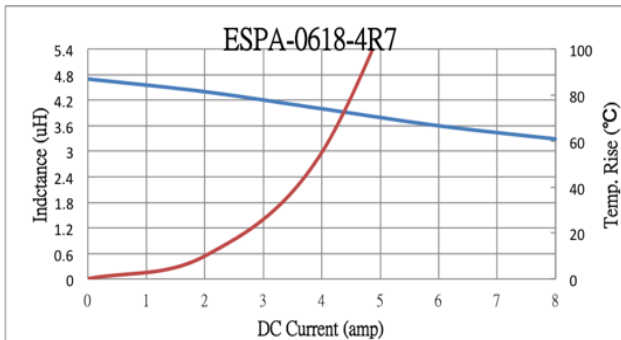
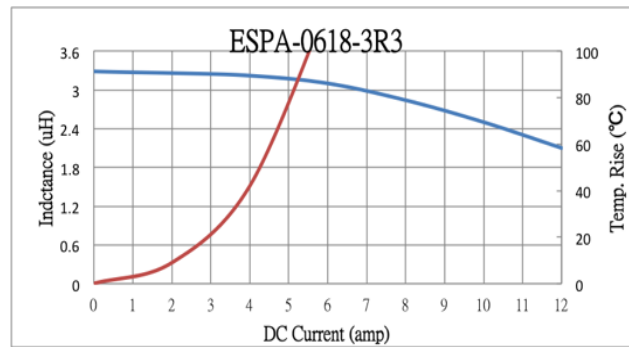
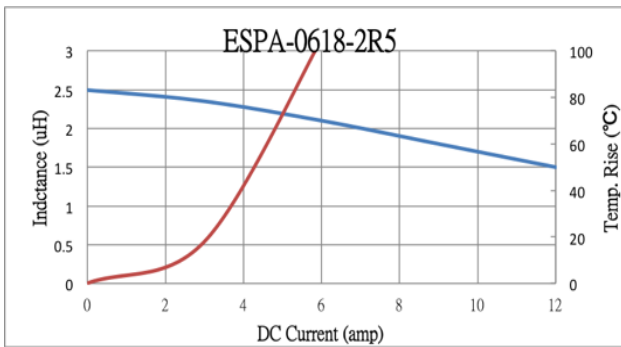
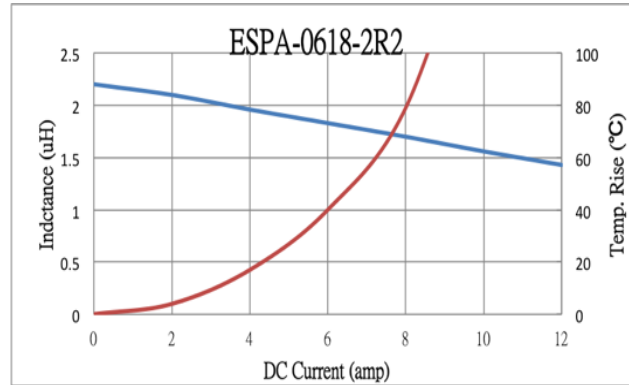
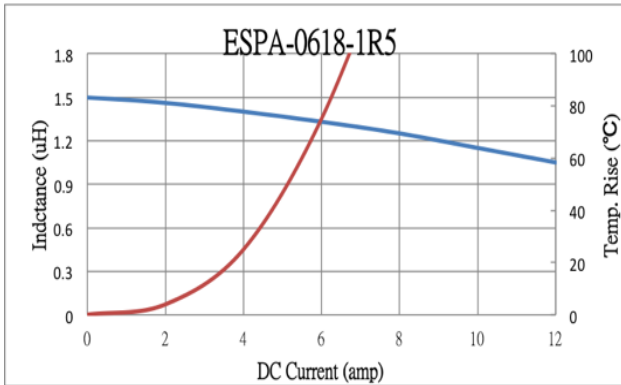


# CHARACTERISTICS

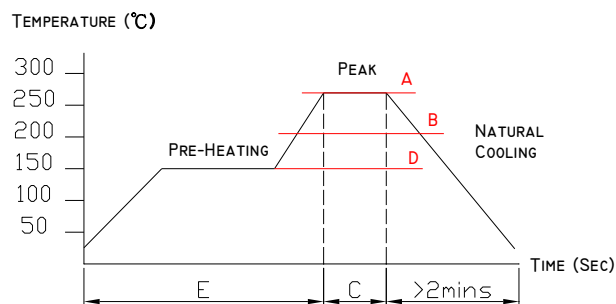
**RoHS  
COMPLIANT**

<b>ITEM P/N</b>	<b>ESPA-0618-SERIES</b>	<b>TEST INSTRUMENT</b>	<b>Zentech-3305 / Zentech502BC</b>
<b>PRODUCT</b>	<b>SMD Inductor</b>	<b>TEST FREQUENCY</b>	<b>100 kHz / 1.0V</b>

## PERFORMANCE CURVES



<b>ITEM P/N</b>	<b>ESPA-0618-SERIES</b>	<b>TEST INSTRUMENT</b>	<b>Zentech-3305 / Zentech502BC</b>
<b>PRODUCT</b>	<b>SMD Inductor</b>	<b>TEST FREQUENCY</b>	<b>100 kHz / 1.0V</b>

**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 <sup>2</sup> (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**

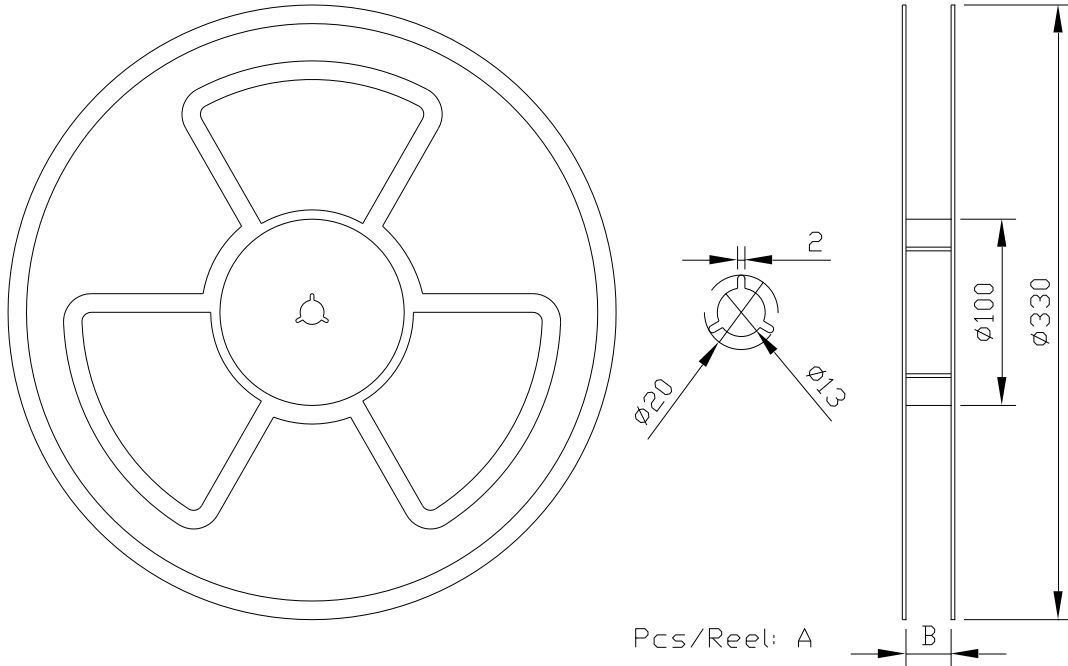
TEST	Specification & Requirement	Method Used
Thermal Shock	Inductance change within ± 5% Without mechanical damage	-55°C, (30 mins) -> room temp. (5 mins) -> 125°C, (30 mins) -> room temp. (5 mins) 100 cycles
Heat Resistance	Inductance change within ± 5% Without mechanical damage	Apply IDC current @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

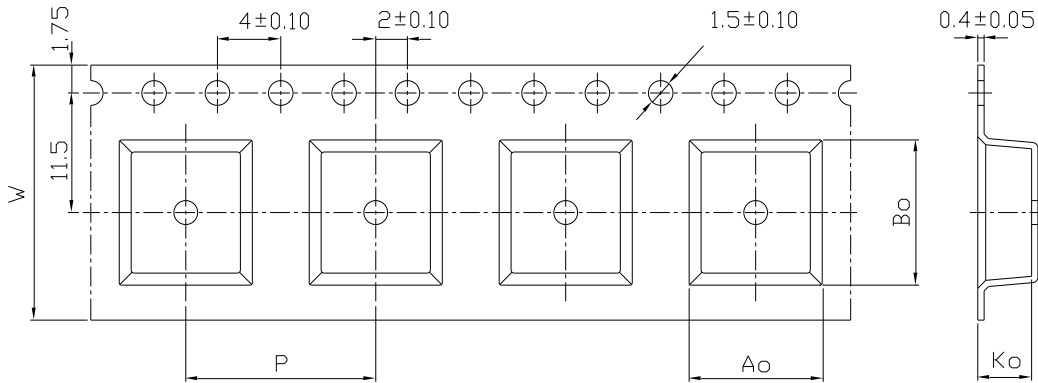
**RoHS  
COMPLIANT**

ITEM P/N	ESPA-0618-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
1500	17	6.9 ± 0.1	7.6 ± 0.1	2.0 ± 0.1



W	P
16	12

Typical Pulling Force:

10 grams

