

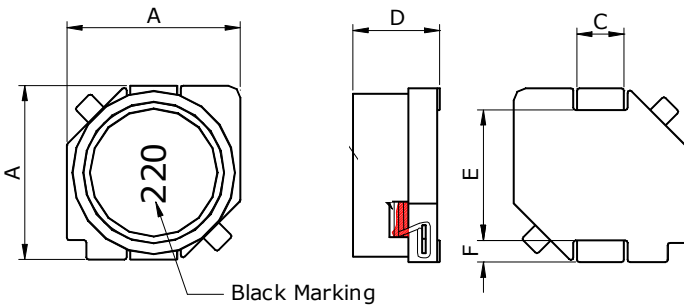
● **FEATURE**

1. High current capacity and Low DCR
2. High heat resistance, ideal for reflow soldering
3. High reliability

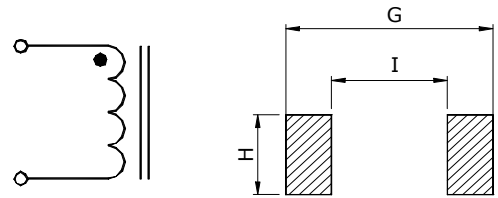
● **Applications**

1. Portable telephone, Personal Computer
2. Hard Disk drives, and other electronic equipment

● **Shape and Dimension**



● **Schematics and Land Patterns(mm)**



● **Specification**

Dimension in m/m

TYPE	A	D	C	E	F	G	I	H
ESCRB6025	6.0±0.20	2.50±0.20	2.00±0.50	4.0	0.90	5.50	4.00	2.20
ESCRB6028	6.0±0.20	2.80±0.20	2.00±0.50	4.0	0.90	5.50	4.00	2.20
ESCRB7028	7.0±0.20	2.80±0.20	2.00±0.50	4.9	0.90	6.40	4.90	2.20
ESCRB7030	7.0±0.20	3.00±0.20	2.00±0.50	4.9	0.90	6.40	4.90	2.20
ESCRB7032	7.0±0.20	3.20±0.20	2.00±0.50	4.9	0.90	6.40	4.90	2.20
ESCRB7045	7.0±0.20	4.50±0.30	2.00±0.50	4.9	0.90	6.40	4.90	2.20
ESCRB10145	10.1±0.20	4.50±0.30	2.50±0.50	5.0	2.00	8.30	5.80	2.20
ESCRB12555	12.5±0.20	5.50±0.30	3.00±0.50	8.6	2.00	11.10	8.60	3.20
ESCRB12565	12.5±0.20	6.50±0.30	3.00±0.50	8.6	2.00	11.10	8.60	3.20
ESCRB12575	12.5±0.20	7.50±0.30	3.00±0.50	8.6	2.00	11.10	8.60	3.20

Note1. Measurement frequency of Inductance value : at 1KHz, 0.25V

Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. IDC : This indicates the value of current when the inductances is 30% lower than its initial value at D.C. superimposition or D.C. current when at Δt=40°C, which is lower.(Ta=20°C)

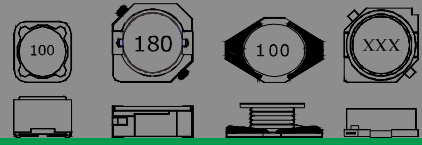
Note4. Inductance tolerance: M: ±20%

Note5. Ordering Code: TYPE NAME: ESCRB7045

Main Inductance: 100 (10Uh)

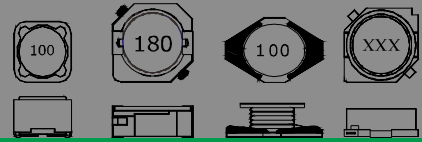
Tolerance : M (±20%)

**SMD POWER INDUCTOR
– ESCR B SERIES**

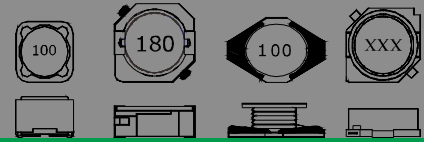


Part No.	Inductance(Uh)	D.C.R.($\Omega \pm 20\%$)/Rated D.C. Current(A)				
		ESCRB6025	ESCRB6028	ESCRB7028	ESCRB7030	ESCRB7032
1R0	1.0					
2R0	2.0					
2R7	2.7					
3R0	3.0					
3R3	3.3			0.037 / 1.60	0.023 / 1.80	0.023 / 1.90
3R9	3.9					
4R7	4.7	0.0306 / 1.50	0.037 / 1.60	0.045 / 1.50	0.036 / 1.60	0.036 / 1.70
5R6	5.6					
6R3	6.3					
6R8	6.8	0.0442 / 1.30	0.049 / 1.50	0.059 / 1.30	0.041 / 1.50	0.041 / 1.60
8R0	8.0					
8R2	8.2					
100	10	0.0573 / 1.00	0.068 / 1.30	0.083 / 1.10	0.053 / 1.30	0.053 / 1.40
120	12					
150	15	0.085 / 0.88	0.075 / 1.00	0.130 / 0.88	0.084 / 1.00	0.075 / 1.10
180	18					
220	22	0.122 / 0.73	0.139 / 0.77	0.180 / 0.75	0.110 / 0.86	0.110 / 0.96
270	27					
330	33	0.180 / 0.59	0.209 / 0.69	0.240 / 0.65	0.160 / 0.65	0.160 / 0.75
390	39					
470	47	0.240 / 0.48	0.289 / 0.59	0.340 / 0.54	0.240 / 0.57	0.240 / 0.67
560	56					
680	68	0.370 / 0.42	0.379 / 0.50		0.310 / 0.49	0.310 / 0.59
820	82					
101	100	0.500 / 0.33	0.609 / 0.42		0.450 / 0.35	0.450 / 0.45
121	120					
151	150					0.650 / 0.37
181	180					
221	220					1.050 / 0.29
331	330					
471	470					2.050 / 0.20
681	680					3.150 / 0.16
821	820					
102	1000					4.780 / 0.13

**SMD POWER INDUCTOR
– ESCRB SERIES**



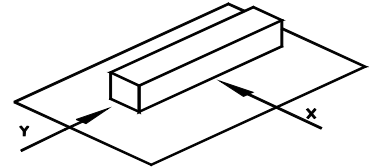
Part No.	Inductance(uH)	D.C.R.(Q±20%)/Rated D.C. Current(A)				
		ESCRB7045	ESCRB10145	ESCRB12555	ESCRB12565	ESCRB12575
1R2	1.2					0.0069 / 8.20
2R0	2.0				0.0117 / 6.20	
2R7	2.7					0.0094 / 7.00
3R3	3.3	0.020 / 2.50				
3R9	3.9					0.0104 / 6.70
4R2	4.2				0.0150 / 5.50	
4R7	4.7	0.030 / 2.00				
5R6	5.6					0.0116 / 6.30
6R0	6.0			0.0164 / 3.60		
6R8	6.8	0.039 / 1.70				0.0131 / 5.90
7R0	7.0				0.0177 / 5.00	
8R2	8.2					
100	10	0.045 / 1.30	0.0384 / 2.50	0.0215 / 3.40	0.0202 / 4.80	0.0156 / 5.40
120	12					
150	15	0.054 / 1.10	0.0472 / 2.20	0.0259 / 2.80	0.0237 / 4.20	0.0184 / 4.70
180	18					
220	22	0.080 / 0.90	0.0591 / 1.90	0.0338 / 2.30	0.0316 / 3.50	0.0263 / 4.00
270	27					
330	33	0.130 / 0.82	0.0815 / 1.60	0.0415 / 1.90	0.0406 / 2.80	0.0395 / 3.20
390	39					
470	47	0.160 / 0.75	0.1000 / 1.40	0.0618 / 1.60	0.0578 / 2.40	0.0528 / 2.70
560	56					
680	68	0.200 / 0.60	0.1400 / 1.20	0.0832 / 1.30	0.0787 / 2.00	0.0778 / 2.00
820	82					
101	100	0.300 / 0.50	0.2000 / 1.00	0.1170 / 1.10	0.1230 / 1.60	0.1250 / 1.90
121	120					
151	150	0.480 / 0.40	0.3500 / 0.79	0.1900 / 0.88		0.1750 / 1.50
181	180					
221	220	0.800 / 0.33	0.4700 / 0.65	0.2700 / 0.72	0.2730 / 1.00	0.2580 / 1.30
331	330	1.100 / 0.25	0.6800 / 0.54	0.4100 / 0.59		
471	470	1.600 / 0.22	1.0300 / 0.47	0.5200 / 0.49		
681	680	2.000 / 0.20	1.5000 / 0.38	0.7600 / 0.43		
821	820					
102	1000	2.500 / 0.14	2.8000 / 0.29	1.1200 / 0.34		
152	1500		3.4000 / 0.22	1.7300 / 0.29		



GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 105°C (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.

Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Inductance coefficient $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C degree Celsius), inductance deviation within $\pm 5.0\%$, after 96 hours
7. Humidity characteristics(Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s² (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds(See attached recommend reflow)
11. Storage condition: Temperature Range: 0°C ~ 35°C ; -40°C ~ 105°C (after PCB) , Humidity Range: 50% ~ 70% RH
12. Use components within 6 months. If 6 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead-free heat endurance test

Lead-free the recommended reflow condition

