

1. Part No. Expression:

SPB0704100MZ

(a) (b) (c) (d) (e)(f)

(a) Series Code

(b) Dimension Code

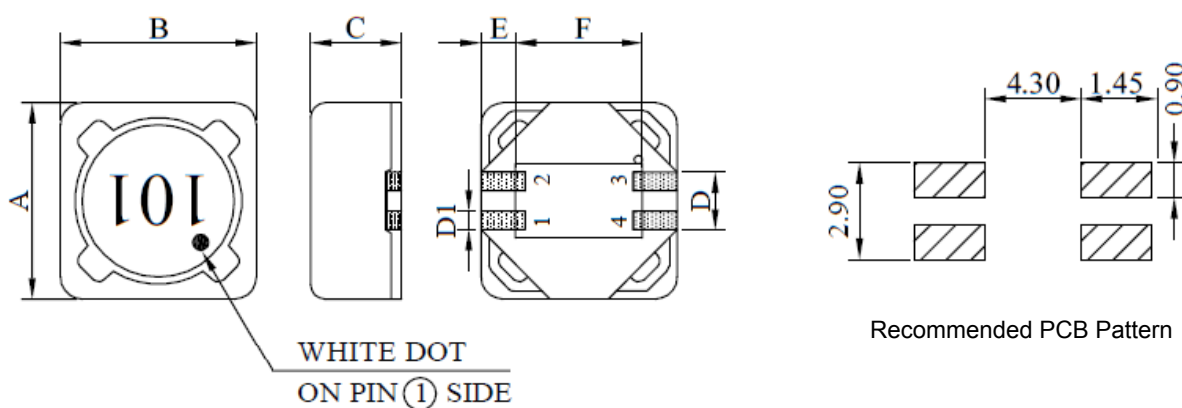
(c) Inductance Code

(d) Tolerance Code

(e) Standard Part

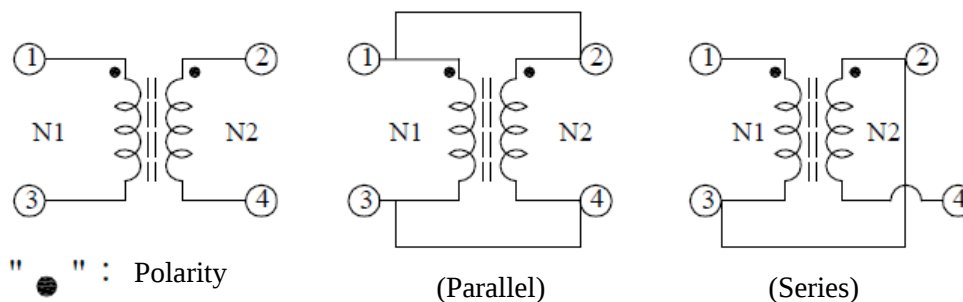
(f) RoHS Compliant

2. Configuration & Dimensions : (Unit: mm)

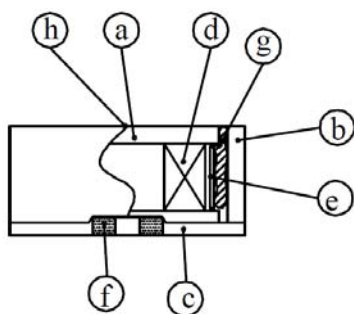


A	B	C	D	D1	E	F
7.30±0.20	7.30±0.20	4.45 Max.	2.70 Ref.	0.70 Ref.	1.25 Ref.	4.50 Ref.

3. Schematic



4. Material List



- a) Core
- b) Core
- c) Base
- d) Wire
- e) Tape
- f) Terminal
- g) Adhesive
- h) Ink

5. General Specification

- a) $\Delta L/L_0A$: 30% Typ. at I_{sat}
- b) Temp. Rise: 40°C Typ. at I_{rms}
- c) Hi-Pot (1-2): 200Vac /3mA /1Sec
- d) Operating Temperature: - 40°C to +125°C
- e) Storage Temperature: - 40°C to +125°C
- f) Resistance to Solder Heat: 260°C, 10Sec.

6. Electrical Characteristics

Part No.	Inductance (uH) Ref.	Test Frequency (Hz)	Parallel				Series			
			Inductance (uH) Ref.	RDC (Ω) Max.	I_{sat} (A)	I_{rms} (A)	Inductanc e (uH) Ref.	RDC (Ω) Max.	I_{sat} (A)	I_{rms} (A)
SPB0704R80YZF	0.80	0.25V/100K	0.752	0.0132	10.20	5.33	3.008	0.0528	5.10	2.660
SPB07041R5YZF	1.50	0.25V/100K	1.422	0.0188	7.00	4.96	5.688	0.0752	3.80	2.480
SPB07042R2YZF	2.20	0.25V/100K	1.986	0.0204	6.60	4.66	7.944	0.0816	3.38	2.330
SPB07043R3YZF	3.30	0.25V/100K	3.396	0.0258	5.20	3.94	13.580	0.1032	2.50	1.970
SPB07044R7YZF	4.70	0.25V/100K	5.182	0.0354	4.37	3.34	20.730	0.1416	2.15	1.670
SPB07046R8YZF	6.80	0.25V/100K	7.344	0.0492	3.50	2.60	29.380	0.1968	1.75	1.300
SPB07048R2YZF	8.20	0.25V/100K	8.566	0.0564	3.20	2.53	34.260	0.2256	1.58	1.270
SPB0704100MZF	10.0	0.25V/100K	9.882	0.0606	3.05	2.41	39.530	0.2424	1.50	1.200
SPB0704150MZF	15.0	0.25V/100K	16.090	0.0948	2.40	2.00	64.360	0.3792	1.20	1.000
SPB0704220MZF	22.0	0.25V/100K	21.730	0.1272	1.95	1.75	86.920	0.5088	1.02	0.874

SMD Power Inductors –SPB0704 Series

P3

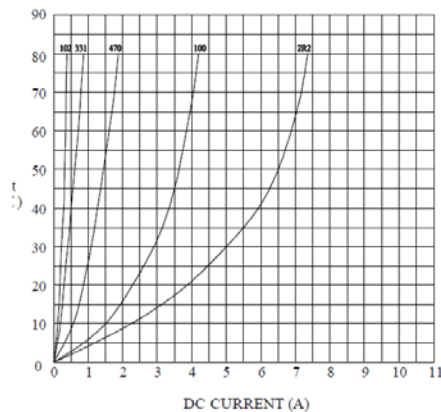
SPB0704330MZF	33.0	0.25V/100K	33.010	0.2052	1.60	1.30	132.000	0.8208	0.81	0.650
SPB0704470MZF	47.0	0.25V/100K	49.640	0.2940	1.32	1.05	198.600	1.1760	0.67	0.525
SPB0704680MZF	68.0	0.25V/100K	69.670	0.4056	1.18	0.95	278.700	1.6224	0.59	0.475
SPB0704820MZF	82.0	0.25V/100K	80.950	0.4920	1.09	0.83	323.800	1.9680	0.55	0.415
SPB0704101MZF	100.0	0.25V/100K	101.600	0.5736	0.96	0.75	406.400	2.2944	0.48	0.375
SPB0704151MZF	150.0	0.25V/100K	150.000	0.8352	0.78	0.60	600.000	3.3408	0.39	0.300
SPB0704221MZF	220.0	0.25V/100K	227.000	1.2192	0.65	0.50	908.000	4.8768	0.32	0.250
SPB0704331MZF	330.0	0.25V/100K	335.600	2.1720	0.53	0.40	1342.000	8.688	0.25	0.200
SPB0704471MZF	470.0	0.25V/100K	465.300	2.6520	0.46	0.35	1861.000	10.608	0.22	0.175
SPB0704681MZF	680.0	0.25V/100K	671.200	4.2480	0.37	0.28	2685.000	16.992	0.175	0.140
SPB0704821MZF	820.0	0.25V/100K	812.700	4.6680	0.35	0.26	3251.000	18.672	0.17	0.130
SPB0704102MZF	1000.0	0.25V/100K	1009.000	5.1840	0.31	0.24	4036.000	20.736	0.16	0.120

Tolerance Code: Y $\pm 30\%$, M $\pm 20\%$

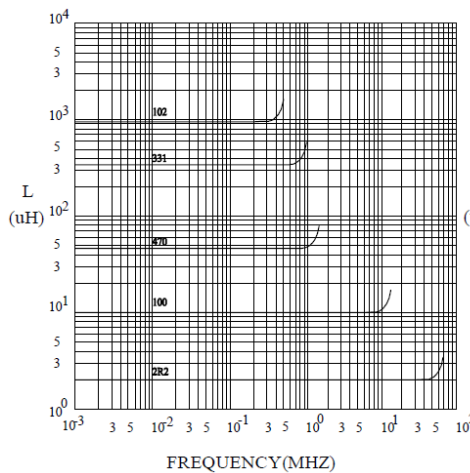
7. Characteristics Curves

a) Parallel

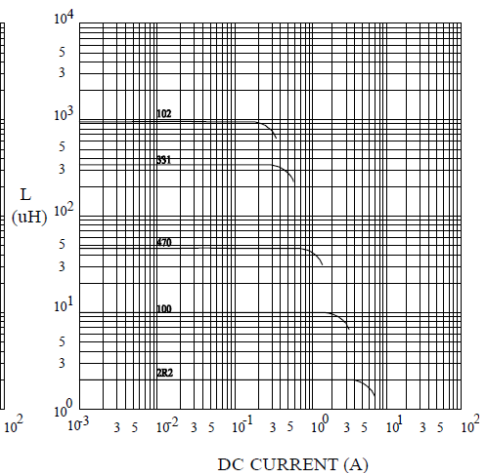
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



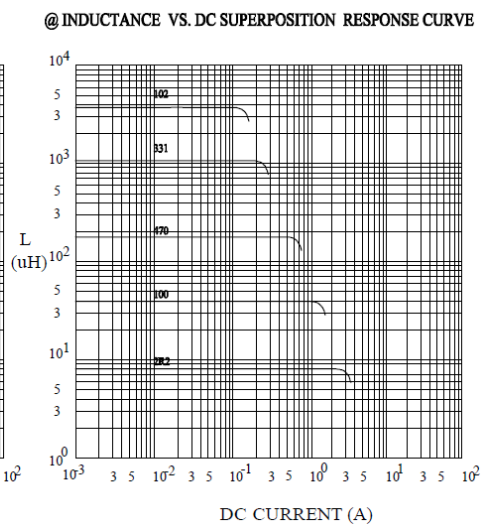
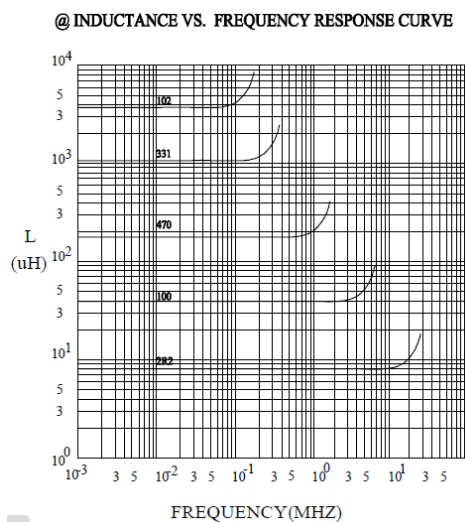
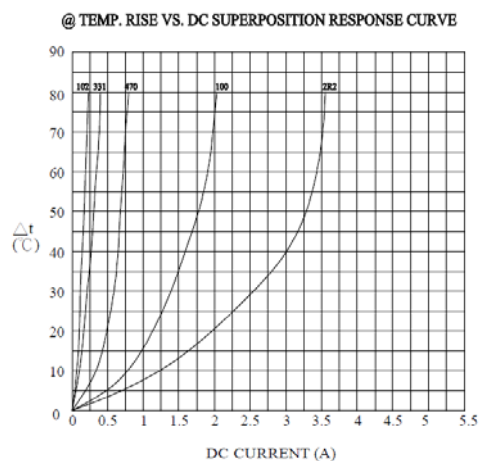
@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



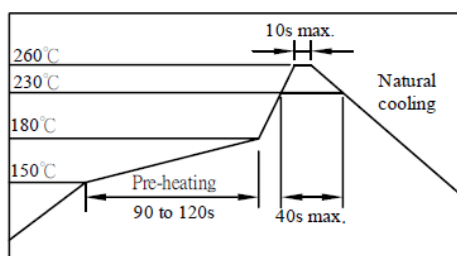
@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



b) Series

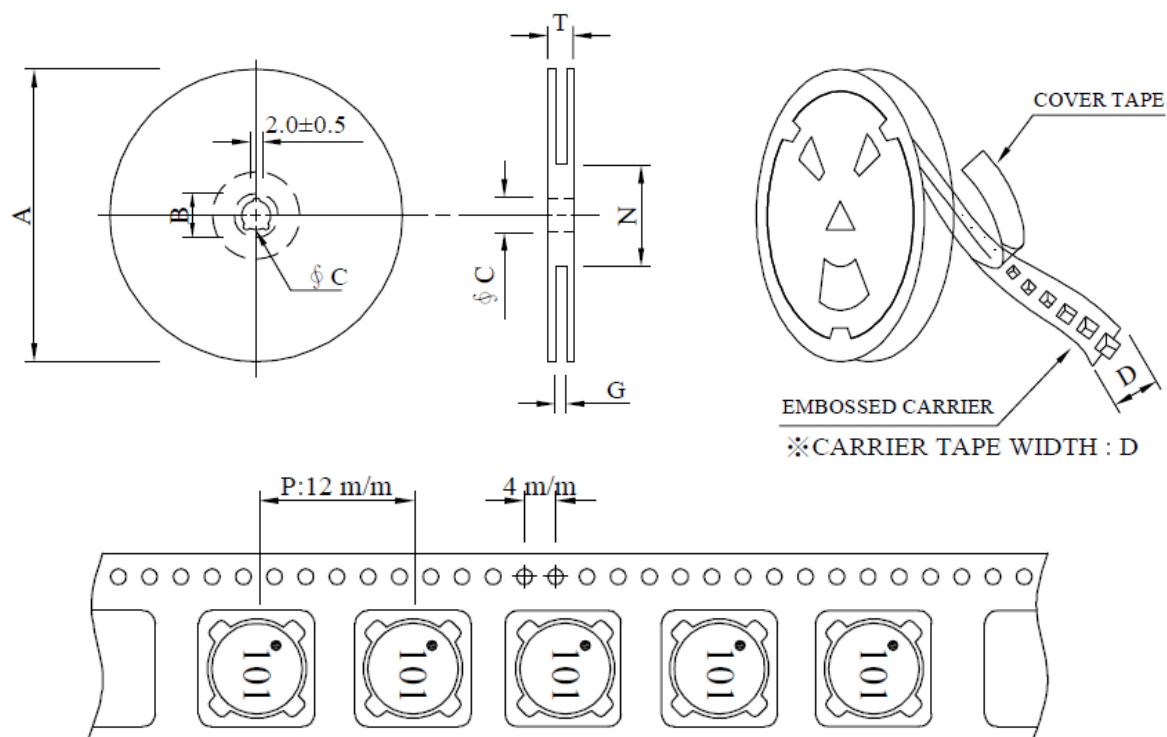


RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS



8. Packaging Information

8-1. Configuration



8-2. Dimensions

Style	A	B	C	D	G	N	T
13-16	330	21 ± 0.8	13	16	18 Max.	50 Min.	22.4

8-3. Quantity & G.W. Per Package

Series	Inner: Reel			Outer: Carton		
	Qty (pcs)	G.W (gw)	Style	Qty (pcs)	G.W (kg)	Size (cm)
SPB0704	1000	717	13-16	6000	7.9	38 x 36.5 x 21