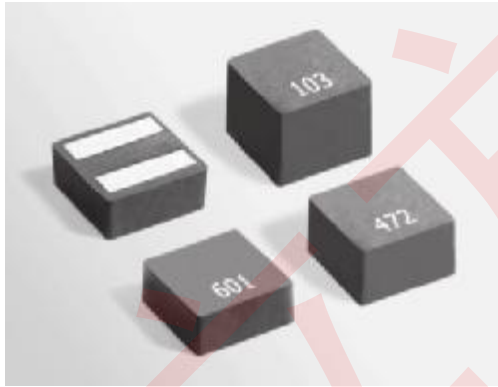




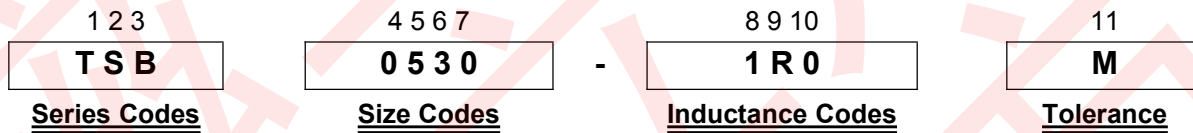
TSB SERIES



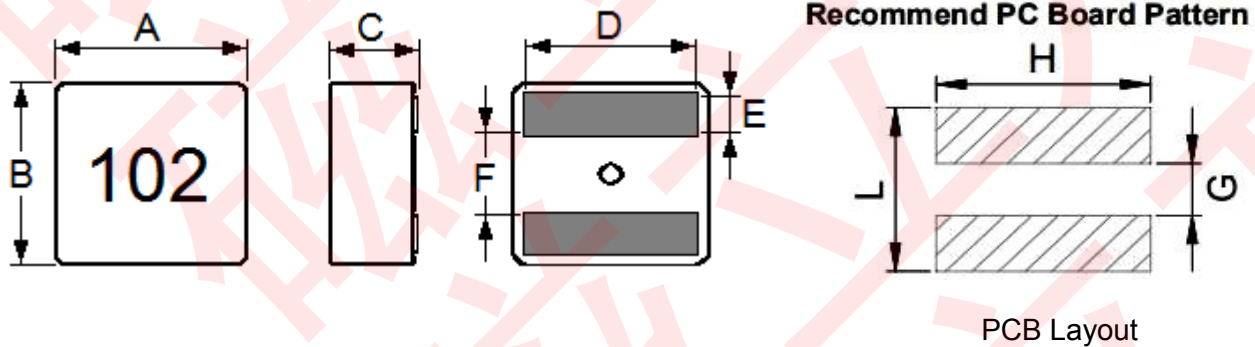
Product description:

1. Assemblage design, sturdy structure.
2. High inductance, high current, low magnetic loss, low ERS, small parasitic capacitance.
3. Flat wire winding, achieve a low DCR.
4. Temperature rise current and saturation current is less influenced by environment.
5. Operating temperature: $-25^{\circ}\text{C} \sim 125^{\circ}\text{C}$.
6. Placement form is SMD.

Explanation of part numbers



Boundary dimension (unit: mm)



Series	A	B	C	D	E	F	G	H	L
TSB0420	4.1±0.2	4.1±0.2	1.9±0.2	3.4±0.3	0.88±0.3	1.6±0.3	1.4 ref	3.8 ref	3.4 ref
TSB0520	5.5±0.2	5.3±0.2	1.9±0.2	4.3±0.3	1.1±0.3	2.3±0.3	2.0 ref	4.7 ref	4.5 ref
TSB0530	5.5±0.2	5.3±0.2	2.9±0.2	4.3±0.3	1.1±0.3	2.3±0.3	2.0 ref	4.7 ref	4.5 ref
TSB0630	6.6±0.2	6.4±0.2	2.8±0.2 $L \cong 1.2\mu\text{H}$	See Spec	1.4±0.3	2.6±0.3	2.5 ref	5.6 ref	5.6 ref
TSB0630	6.6±0.2	6.4±0.2	2.9±0.2 $L \cong 1.5\mu\text{H}$	See Spec	1.4±0.3	2.6±0.3	2.5 ref	5.6 ref	5.6 ref



TSB SERIES

Electrical Characteristics: TEST CONDITION: AT 25°C, 100KHz / 0.1V

Part No.	Lo(0A)	Irms(A)	Isat(A)	DCR(mΩ)	DCR(mΩ)			
	(μH)±20%	Type.	Type.	Type.	Max.			
TSB0420-R10M	0.10	18.2	37.8	2.3	2.5			
TSB0420-R22M	0.22	16.5	19.4	4.2	4.7			
TSB0420-R36M	0.36	14.6	16.9	5.7	6.5			
TSB0420-R40M	0.40	13.9	15.3	7.1	7.9			
TSB0420-R47M	0.47	12.3	14.2	7.8	8.8			
TSB0420-R56M	0.56	11.8	13.9	8.5	9.5			
TSB0420-R60M	0.60	11.5	13.5	8.8	9.7			
TSB0420-R72M	0.72	10.7	11.8	10.6	11.9			
TSB0420-1R0M	1.00	9.5	9.5	13.5	15.0			
TSB0420-1R2M	1.20	8.8	8.8	16.4	18.1			
TSB0420-1R5M	1.50	7.5	7.8	21.2	23.8			
TSB0420-1R8M	1.80	6.8	7.3	25.3	28.5			
TSB0520-R15M	0.15	18.6	29.8	4.3	4.9			
TSB0520-R16M	0.16	18.6	29.8	4.3	4.9			
TSB0520-R33M	0.33	14.3	25.8	6.2	7.3			
TSB0520-R47M	0.47	14.0	21.7	7.3	8.2			
TSB0520-R56M	0.56	13.8	18.8	8.8	9.7			
TSB0520-R68M	0.68	13.2	15.8	9.1	10.5			
TSB0520-R80M	0.80	12.7	15.3	10.5	12.0			
TSB0520-R82M	0.82	11.8	14.8	11.2	12.8			
TSB0520-1R0M	1.00	10.1	14.3	12.3	14.1			
TSB0520-1R2M	1.20	9.2	13.9	14.3	16.5			
TSB0520-1R5M	1.50	8.5	13.1	16.5	19.0			
TSB0530-R15M	0.15	22.0	35.8	2.15	2.4			
TSB0530-R16M	0.16	22.0	34.7	2.15	2.4			
TSB0530-R33M	0.33	18.9	27.9	3.3	3.6			
TSB0530-R47M	0.47	18.3	25.6	3.8	4.3			
TSB0530-R56M	0.56	17.5	22.0	4.2	4.7			
TSB0530-R60M	0.60	17.5	21.8	4.2	4.7			
TSB0530-R80M	0.80	13.0	19.8	5.2	5.8			
TSB0530-R82M	0.82	12.6	19.5	5.4	5.9			
TSB0530-1R0M	1.00	12.0	16.2	7.1	7.9			
TSB0530-1R2M	1.20	11.0	14.7	8.9	9.9			
TSB0530-1R5M	1.50	10.4	13.6	10.3	11.5			
TSB0530-1R8M	1.80	9.8	12.1	11.7	12.9			
TSB0530-2R2M	2.20	9.5	9.8	13.3	14.8			



TSB SERIES

Electrical Characteristics: TEST CONDITION: AT 25°C, 100KHz / 0.1V

Part No.	Lo(0A) (μH)±20%	Irms(A) Type.	Isat(A) Type.	DCR(mΩ) Type.	DCR(mΩ) Max.			
TSB0530-3R3M	3.30	8.0	9.2	21.3	23.5			
TSB0530-4R7M	4.70	5.6	8.0	33.2	36.7			
TSB0630-R18M	0.18	31.5	40.0	1.8	2.0			
TSB0630-R33M	0.33	24.8	31.8	2.3	2.6			
TSB0630-R56M	0.56	21.6	28.6	3.1	3.5			
TSB0630-R68M	0.68	19.8	24.7	4.9	5.3			
TSB0630-1R0M	1.00	17.7	22.6	5.7	6.3			
TSB0630-1R2M	1.20	15.8	21.7	6.9	7.7			
TSB0630-1R5M	1.50	14.5	20.0	8.5	9.4			
TSB0630-1R8M	1.80	13.6	18.0	9.5	10.5			
TSB0630-2R2M	2.20	9.8	15.4	11.3	12.6			
TSB0630-3R3M	3.30	8.0	11.8	19.0	21.2			
TSB0630-4R5M	4.50	6.9	9.6	23.3	25.7			
TSB0630-4R7M	4.70	6.6	9.5	23.5	26.0			

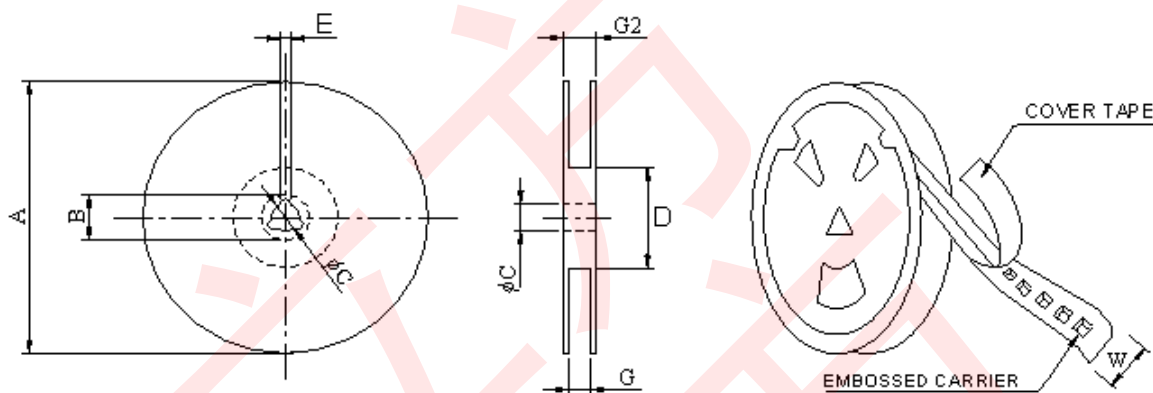
NOTE:

- All test data is referenced to 25°C ambient.
- Irms: DC current(A) that will cause an approximate ΔT of 40°C.
- Isat: DC current(A) that will cause Lo to drop approximate 30%.
- Operating temperature range is -25°C to 125°C.
- The part temperature(ambient and temp rise) should not exceed 125°C under worse case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.



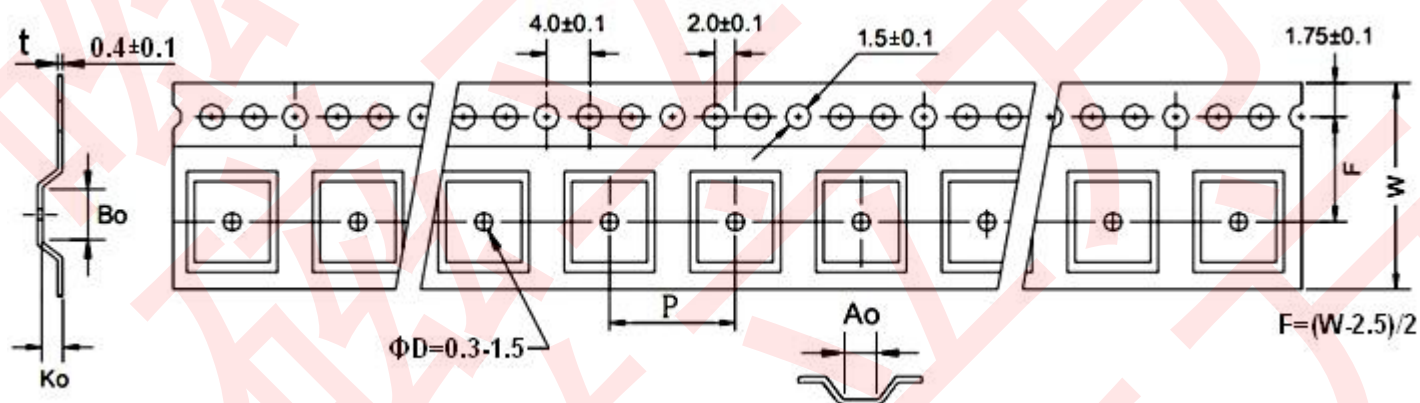
TSB SERIES

PACKING INFORMATION



*CARRIER TAPE WIDTH: W

TYPE	A(Ref.)	B(Ref.)	C(Ref.)	D(Ref.)	E(Ref.)	G(Ref.)	G2(Ref.)
13"(330mm)	330±1	20±0.8	13±0.5	100±1	2.0±0.5	W+0.5	W+4



Series	QTY (Pcs/Reel)	Ao	Bo	Ko	W	P
TSB0420	3000 Ref.	4.4	4.6	2.3	12	8
TSB0520	3000 Ref.	5.7	6.0	2.3	12	8
TSB0530	2000 Ref.	5.7	6.0	3.3	16	8
TSB0630	1000 Ref.	6.8	7.1	3.3	16	12

Typical Pulling Force: 10-130 grams

