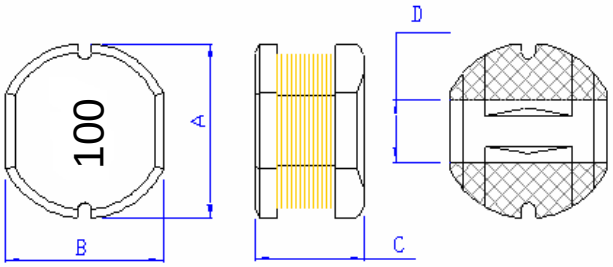
1. Features

1.Low profile very effective in space-conscious applications

2.Low resistance and high energy storage.

2. Dimension



Item	A (mm)	B (mm)	C (mm)	D(mm)
0503	5.80±0.30	5.20± 0.30	3.00±0.30	1.5 Typ.

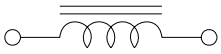
3. Part Numbering

TP	0503	-	100	K
A	B		C	D

A:Series
B:Dimension AxC
C:Inductance
D:Inductance Tolerance

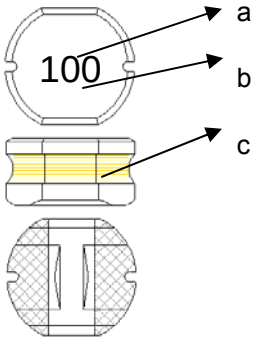
100=10.0 μ H
K=±10%, M=±20%

4. Schematic Diagram



5. Materials

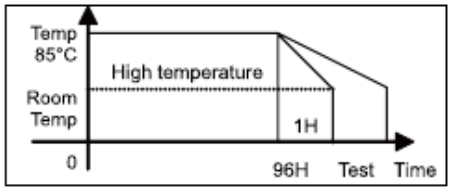
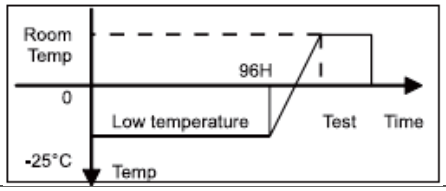
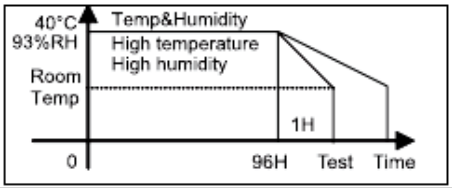
No.	Description	Specification
a.	Marking	
b.	Drum Core	Ferrite Core
c.	Wire	Polysol 155 Wire



6. Specification

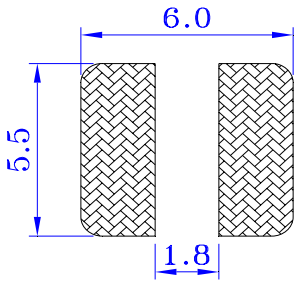
DGBullWill Part No.	Inductance (μH)±20%	DC Resistance (Ω)Max	FLL (@Isat) (μH)Min	Isat Amperes Peak for approximately 30% roll off (@ 20°C).	Irms Amperes for approximately a ΔT of 40°C. above 85°C ambient
TP0503-R56M	0.56	0.0109	0.4032	6.667	4.804
TP0503-1R0M	1	0.0137	0.72	5.455	4.292
TP0503-1R2M	1.2	0.0166	0.864	4.615	3.901
TP0503-1R5M	1.5	0.0235	1.08	4	3.273
TP0503-1R8M	1.8	0.0235	1.296	4	3.273
TP0503-2R2M	2.2	0.0264	1.584	3.529	3.09
TP0503-2R7M	2.7	0.0305	1.944	3.158	2.875
TP0503-3R3M	3.3	0.0407	2.376	2.857	2.489
TP0503-3R9M	3.9	0.0443	2.808	2.609	2.386
TP0503-4R7M	4.7	0.0497	3.384	2.4	2.252
TP0503-5R6M	5.6	0.0535	4.032	2.222	2.17
TP0503-6R8M	6.8	0.0634	4.896	1.935	1.994
TP0503-8R2M	8.2	0.0882	5.904	1.714	1.69
TP0503-100K	10	0.101	8.1	1.538	1.579
TP0503-120K	12	0.1302	9.72	1.463	1.391
TP0503-150K	15	0.1529	12.15	1.277	1.284
TP0503-180K	18	0.1703	14.58	1.176	1.217
TP0503-220K	22	0.229	17.82	1.053	1.049
TP0503-270K	27	0.2591	21.87	0.952	0.986
TP0503-330K	33	0.3408	26.73	0.87	0.86
TP0503-390K	39	0.3787	31.59	0.8	0.816
TP0503-470K	47	0.4282	38.07	0.723	0.767
TP0503-560K	56	0.5776	45.36	0.659	0.661
TP0503-680K	68	0.6408	55.08	0.606	0.627
TP0503-820K	82	0.8507	66.42	0.55	0.544
TP0503-101K	100	0.9796	81	0.496	0.507
TP0503-121K	120	1.2946	97.2	0.451	0.441
TP0503-151K	150	1.4796	121.5	0.408	0.413
TP0503-181K	180	1.6468	145.8	0.373	0.391
TP0503-221K	220	2.2032	178.2	0.335	0.338
TP0503-271K	270	2.523	218.7	0.302	0.316
TP0503-331K	330	3.4309	267.3	0.274	0.271
TP0503-391K	390	3.7944	315.9	0.251	0.258
TP0503-471K	470	5.2582	380.7	0.23	0.219
TP0503-561K	560	5.8818	453.6	0.211	0.207
TP0503-681K	680	6.6558	550.8	0.19	0.195
TP0503-821K	820	9.0035	664.2	0.174	0.167
TP0503-102K	1000	10.2712	810	0.157	0.157

7. Reliability Test Conditions

Item	Required Characteristics	Test Method / Condition
Environmental tests		
High temperature Storage test Reference documents: MIL-STD-202G Method 108A	1.No case deformation or change in appearance. 2.ΔL/L≦10% ΔL/L≦30% (Close Magnetic Circuit) 3.ΔQ/Q≦30% 4.ΔDCR/DCR≦10%	Temperature: 85±2℃ Time : 96±2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature. 
Low temperature Storage test Reference documents: IEC 68-2-1A 6.1 6.2		Temperature: -25±2℃ Time : 96±2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature. 
Humidity Test Reference documents: MIL-STD-202G		1. Dry oven at a temperature of 40° ±5℃ for 24 hours. 2. Measurements At the end of this period. 3. Exposure:Temperature: 40±2℃, Humidity: 93±3%RH Time :96±2 hours 4. Tested while the specimens are still in the chamber 5. Tested (Second Time) not less than 1 hour, nor more than 2 hours at room temperature. 

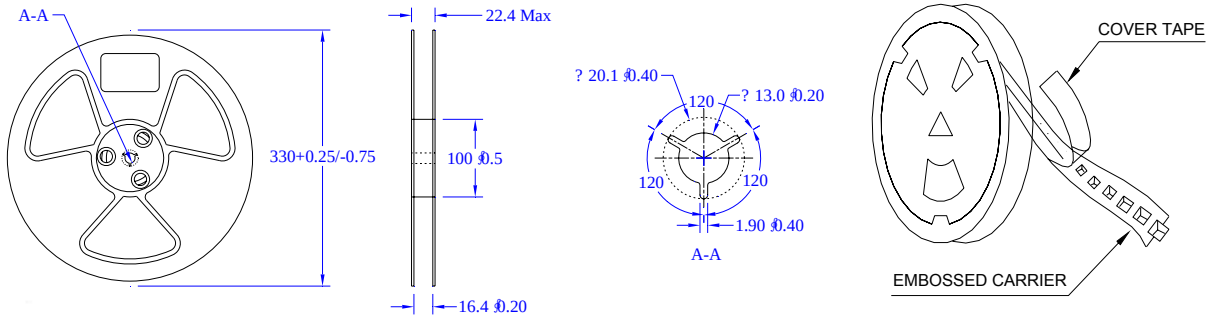
8.1. Design of Land Pattern And Solderability

Terminations to be well soldered after immersion in a Sn(99.3)/Cu(0.7) tin/lead solder bath at 245 ± 5℃ for 5 ± 1 seconds.

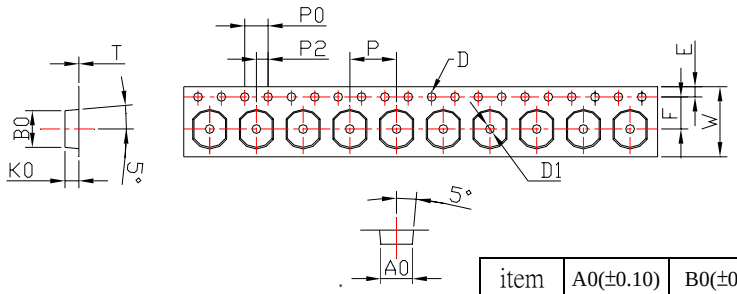


8. Packaging Information

8-1. Reel Dimension & Tape Dimension

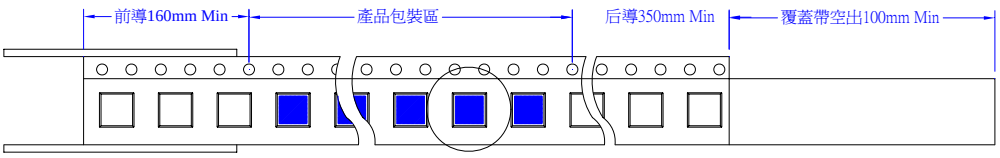


8.2. Tape Dimension (Unit:mm)

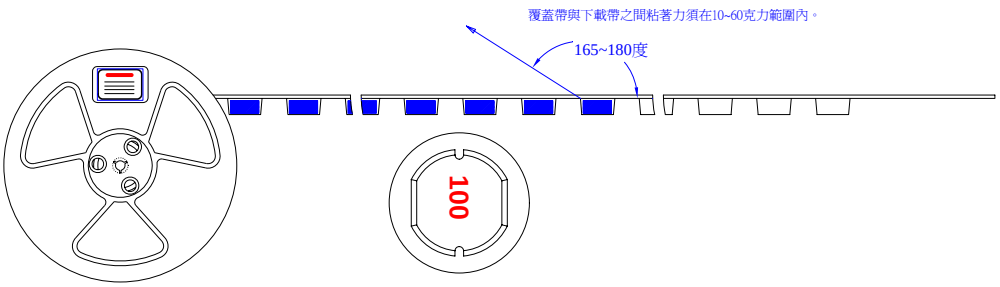


item	A0(±0.10)	B0(±0.10)	K0(±0.10)		t(±0.05)	W(±0.30)
spec	5.50	6.10	3.5		0.35	16.0
item	P0(±0.10)	P(±0.10)	P2(±0.10)	E(±0.10)	F(±0.10)	D(±0.05)
spec	4.0	12.0	2.0	1.75	7.5	1.50

8.3. Packaging Specification



A-A



A-A

9.4. Packaging Quantity

Type	Pcs / Reel	Inner box	Middle box	Carton
CD53 TP	1500	6,000	12,000	12,000

Room Temp. (℃)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300