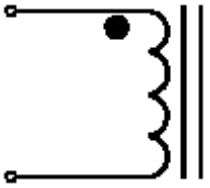
Inductor

multicomp PRO

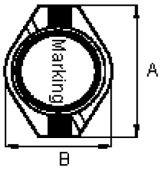
RoHS Compliant

Schematic Diagram

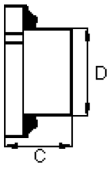


Note:
1. Wire Ø0.4mm × 1P 2UEWF 155°C
2. 21.5TS (Reference)

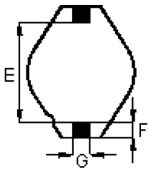
Configurations and Dimensions



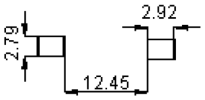
Top View



Side View



Bottom View



Suggest PCB Layout

A	18.54mm (Max.)
B	15.24mm (Max.)
C	7.62mm (Max.)
D	12.7 ±0.3mm
E	12.7mm (Ref.)
F	2.54mm (Ref.)
G	2.54mm (Ref.)

Dimensions : Millimetres

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm	F mm	G mm
Specification	**18.54 (Max.)**	**15.24 (Max.)**	**7.62 (Max.)**	**12.7 ±0.3**	**12.7 (Ref.)**	**2.54 (Ref.)**	**2.54 (Ref.)**
1	17.95	14.01	6.94	12.55	12.45	2.41	2.58
2	17.93	14.02	6.91	12.56	12.57	2.43	2.55
3	17.99	13.98	6.91	12.66	12.48	2.44	2.44
4	17.95	14.02	6.95	12.67	12.47	2.45	2.43
5	17.96	14.05	6.97	12.67	12.55	2.43	2.58
Average	**17.96**	**14.02**	**6.94**	**12.62**	**12.5**	**2.43**	**2.52**

Electrical Characteristics

Test Condition		
100kHz / 0.1V	L	33µH ±20%
at 25°C	DCR	75mΩ (Maximum)
100kHz / 0.1V Irms = 2.9A	L at Irms	ΔT 40°C (Max.)

Operating temperature : -55°C to +130°C
Note : Irms : Temperature rise 40°C

Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating temperature range	-55°C to +130°C	Including temperature rise due to self-generated heat.
Storage condition	Ambient temperature : 0°C to 40°C Humidity : Below 70% RH	To maintain the solderability of terminal electrodes, care must be taken to control temperature and humidity in the storage area.
Moisture sensitivity	Appearance : No abnormality No damage DCR change : Within ±5% Inductance change : Within ±5%	According to J-STD-020B level 3 Test condition : 60°C 60% RH Test duration : 40 hrs Recovery : 1 to 2 hours of recovery under the standard condition after the removal from the test chamber.
Solderability	All termination shall exhibit a continuous solder coating free from defects for a minimum of 95% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hrs Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0 / -0.5s

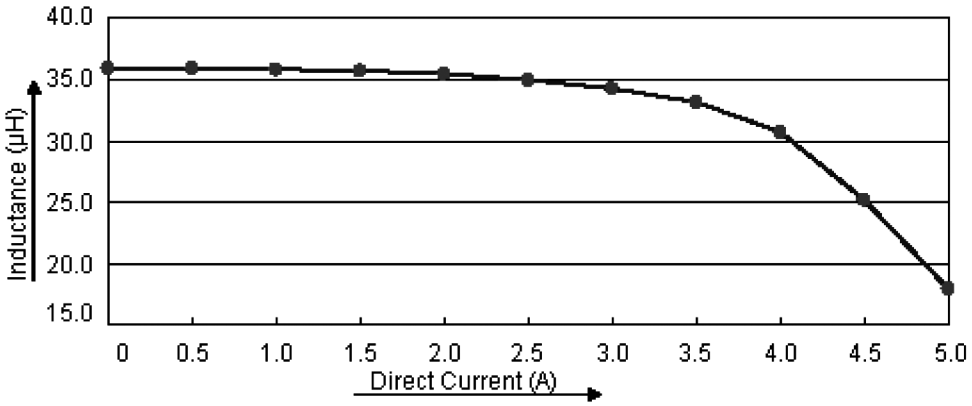
Test Data for Electrical

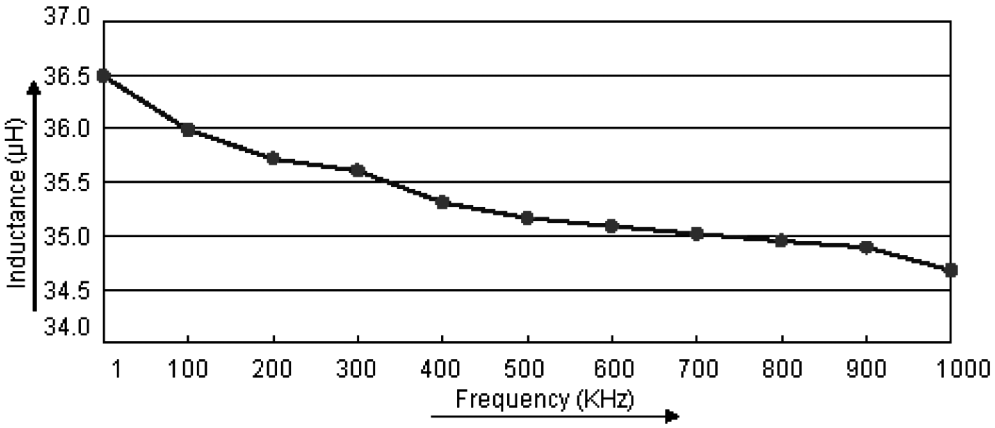
Test Item	L µH	DCR mΩ	ΔT
Condition	100kHz / 0.1V	at 25°C	100kHz / 0.1V Irms = 0.29A
Specification	33 ±20%	75 (Max.)	ΔT 40°C (Max.)
1	31.09	71.53	OK
2	31.32	71.54	
3	30.98	71.67	
4	30.92	71.14	
5	30.98	71.12	
Average	**31.058**	**71.4**	**OK**

Material List

No.	Item	Material Description
1	Core	N5D DR9.7 × 5.8; N5D RI12.7 × 5.7 × 10.8
2	Wire	Ø0.4 mm × 1P 2UEWF (155°C)
3	Solder (Lead Free)	Sn99.3% / Cu0.7%
4	Glue	TH320D / TH320-3
5	Base	C1270+03009-1 DAP

Electric Characteristics





Part Number Table

Description	Part Number
Inductor, 33µH, 20%, 3.6A	MCBFS7330-330MU