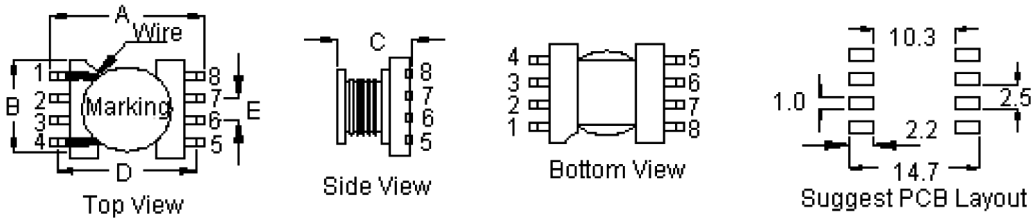
Inductor

multicomp PRO

RoHS Compliant

Marking: 270

Configurations and Dimensions

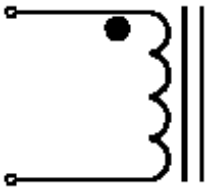


Dimensions : Millimetres

Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm	E mm
Specification	12.5 ± 0.5	10.5 (Max.)	6.3 (Max.)	11 ±0.5	2.5 ±0.3
1	12.46	10	5.88	10.93	2.48
2	12.43	10.02	5.84	10.91	2.43
3	12.48	9.99	5.91	10.93	2.38
4	12.45	10.02	5.83	10.96	2.41
5	12.46	10.01	5.81	10.98	2.46
Average	**12.46**	**10.01**	**5.85**	**10.94**	**2.43**

Schematic Diagram



Note:
(1) Wire Ø0.3mm × 1P 2UEWF 155°C
(2) 21.5TS (Reference)

Electrical Characteristics

Test Condition		
1kHz 1V	L	27μH ±10%
T_A = 25°C	DCR	150mΩ (Max)
1kHz 1V Irms = 1.4A	ΔT	Temperature rise 40°C (Max.)

Operating temperature : -55°C to +130°C

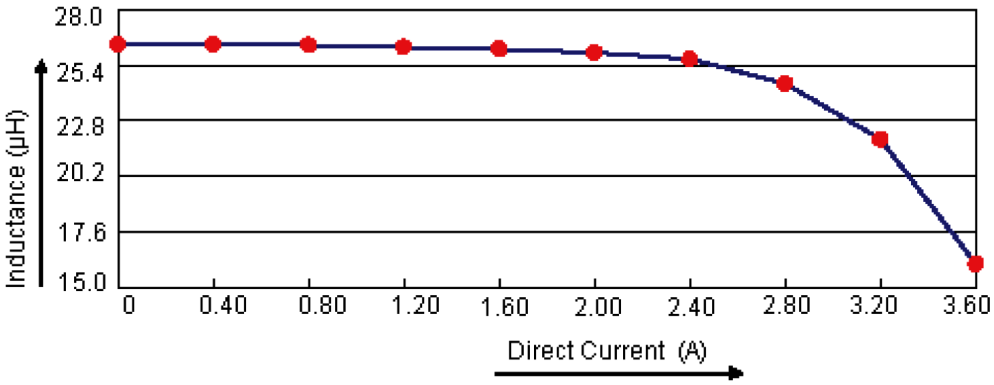
Material List

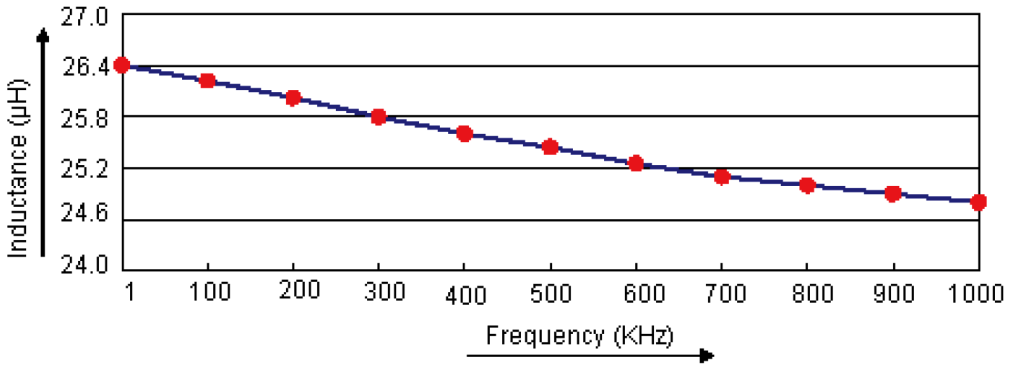
No.	Item	Material Description
1	Core	R5A CDR9 x 4.1 B4.0 F2.15
2	Wire	Ø0.3mm x 1P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3% / Cu0.7%
4	Glue	TH320
5	Base	SB-001-3 LCP-E4008

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

Electric Characteristics





Test Data for Electrical

Test Item	L µH	DCR Ω	ΔT
Condition	1kHz 0.25V	at 25°C	1kHz 0.25V Irms = 0.64A
Specification	27 ±10%	150 (Maximum)	Temperature rise 40°C (Max.)
1	26.38	92.91	OK
2	26.28	92.96	
3	26.45	93.45	
4	26.74	92.75	
5	26.55	93.11	
Average	**26.48**	**93.04**	**OK**

Part Number Table

Description	Part Number
Inductors, 27µH, 10%, SMD	MCSDC0906-270KU