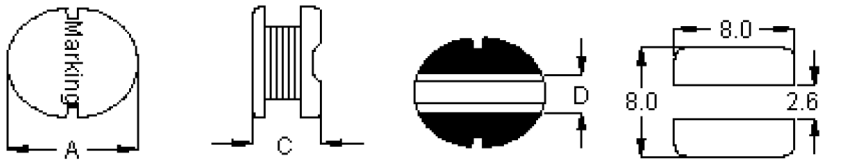
Inductor

RoHS Compliant

Configurations and Dimensions

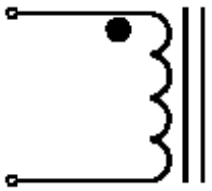


Top View | Side View | Bottom View | Suggest PCB Layout

Dimensions : Millimetres

Marking: 470

Schematic Diagram



Note:
1. Wire Ø0.18mm × 1P 2UEWF 155°C
2. 75.5TS (Reference)

Test Data for Mechanical

Test Item	A mm	B mm	D mm
Specification	7.8 (Max.)	5.3 (Max.)	2.6 (Ref.)
1	7.5	5.01	2.52
2	7.52	5.03	2.49
3	7.48	5.04	2.43
4	7.5	5.05	2.55
5	7.49	5.03	2.47
Average	**7.5**	**5.03**	**2.49**

Electrical Characteristics

Test Condition		
1kHz 1V	L	220µH ±10%
at 25°C	DCR	0.96Ω (Max.)
1kHz 1V Isat = 1.6A	L at Isat	L drops 35% (Max.)
1kHz 1V Irms = 1A	ΔT	Temperature rise 40°C (Max.)

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

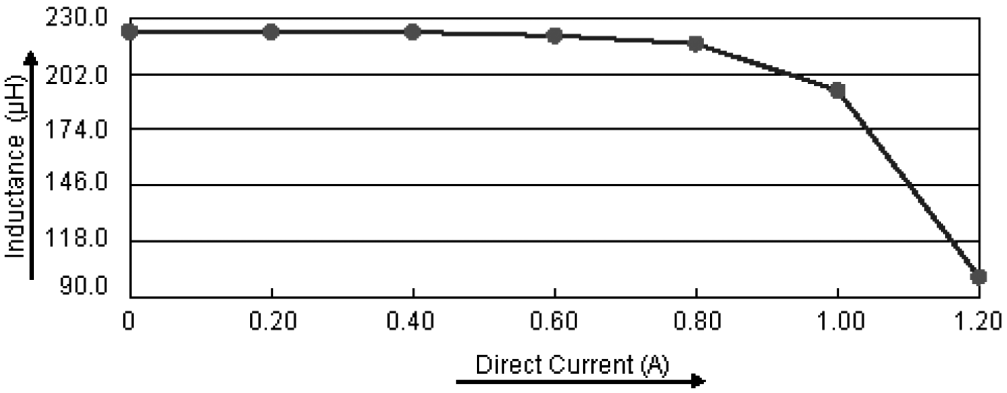
Material List

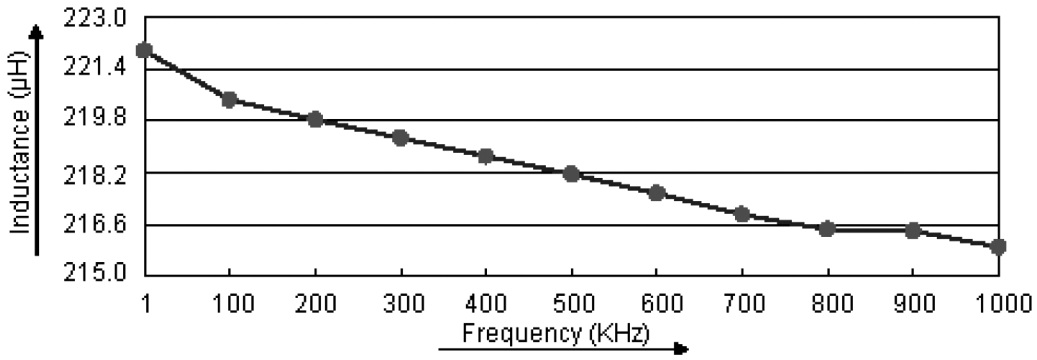
No.	Item	Material Description
1	Core	R5A CDR7.5 × 5 (ST) B3.4 F2.5
2	Wire	Ø0.18mm × 1P 2UEWF (155°C)
3	Solder (Lead-free)	Sn99.3% / Cu0.7%

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	L at Isat µH	ΔT
Condition	1kHz 1V	at 25°C	1kHz 1V Isat = 0.8A	1kHz 1V Irms = 0.49A
Specification	220 ±10%	0.96 (Max.)	L drops 35% (Max.)	Temperature rise 40°C (Max.)
1	222.9	0.84	215.72	OK
2	221.95		213.64	
3	220.85	0.85	214.6	
4	221.7	0.84	213.45	
5	220.45	0.86	214	
Average	**221.57**	**0.85**	**214.28**	**OK**

Part Number Table

Description	Part Number
Inductor, 220µH, 10%, SMD	MCSDC0805-221KU