

Common Mode Choke

RoHS
Compliant

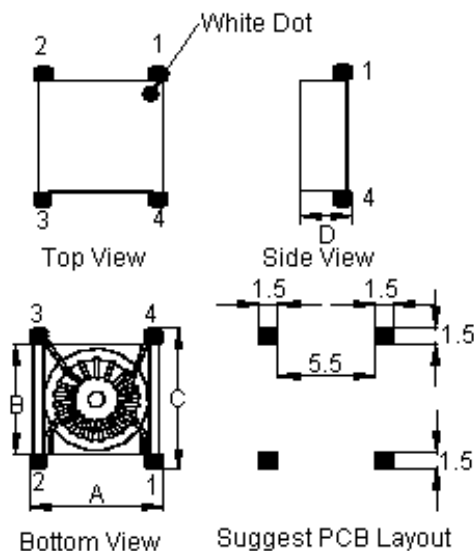
Electrical Characteristics (at 25°C)



1kHz 0.25V	L_{1-4}	40 μ H +50% -35%
	L_{2-3}	
	$L_{1-4}-L_{2-3}$	3 μ H (Max.)
at 25°C	DCR_{1-4}	45m Ω (Max.)
	DCR_{2-3}	
100MHz	Z	300 Ω (Typical)
Coil-Coil DC 1,000 2mA	Hi-pot	3S (Min.)
1kHz 0.25V	Rated Current	500mA (Max.)
	Rated Voltage	50V (Typical)

Operating temperature: -20°C to +85°C

Configurations and Dimensions



A	8.3 \pm 0.5mm
B	7 \pm 0.5mm
C	10 \pm 0.5mm
D	5 \pm 0.5mm

Dimensions : Millimetres

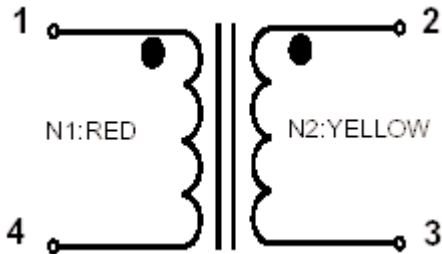
Test Data for Mechanical

Test Item	A mm	B mm	C mm	D mm
Specification	8.3 \pm 0.5	7 \pm 0.5	10 \pm 0.5	5 \pm 0.5
1	8.14	6.99	10.04	5.35
2	8.16	6.98	10.01	5.38
3	8.2	7	10	5.39
4	8.18	6.98	10.05	5.4
5	8.19	7.01	10.03	5.41
Average	8.17	6.99	10.03	5.39

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Schematic Diagram



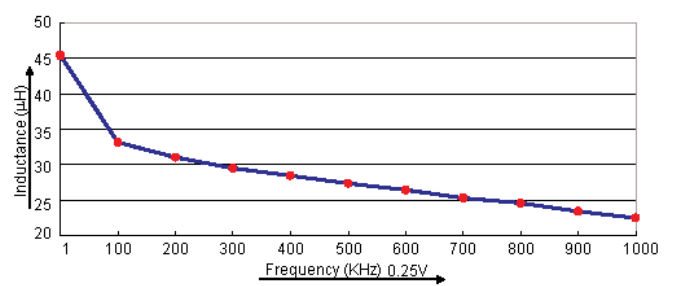
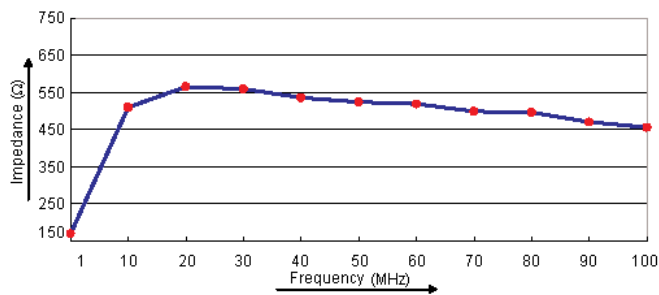
Note:

- 1-4.Wire Ø0.3mm × 1P 2UEWF 155°C × 8TS (Reference)
- 2-3.Wire Ø0.3mm × 1P 2UEWF 155°C × 8TS (Reference)

Test Data for Electrical

Test Item	L_{1-4} μH	L_{2-3} μH	$L_{1-4-2-3}$ μH	DCR ₁₋₄ $\text{m}\Omega$	DCR ₂₋₃ $\text{m}\Omega$	Z Ω	Hi-pot S
Condition	1KHz 0.25V	1KHz 0.25V	1KHz 0.25V	at 25°C	at 25°C	100MHz	Coil-Coil DC 1,000 2mA
Specification	40 +50% -35%	40 +50% -35%	3 (Max.)	45 (Max.)	45 (Max.)	300 (Typical)	3 (Min.)
1	42.78	42.85	0.07	20.4	20.16	468	OK
2	43.64	43.86	0.22	20.2	19.73	431	OK
3	44.74	44.9	0.16	19.9	19.87	478	OK
4	46.5	47	0.5		19.73	468	OK
5	46.38	46.59	0.21	19.8	19.89	446	OK
Average	44.81	45.04	0.23	20.04	19.88	458	OK

Electric Characteristics



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Reliability Test

Test Item	Specifications	Test Method and Remarks
Operating temperature range	-20°C to +85°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 ±20% Inductance change : Within ±20%	According to J-STD-020B level 3 Test condition : 60°C 60% RH Test duration : 40 hours 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 90% of the surface area of any individual lead.	According to J-STD-002B Steam aging category : 97°C 98% RH Steam aging duration : 8 hours Solder : Lead-free solder Solder temperature : 260 ±5°C Dip time : 5 +0/-0.5 seconds.

Material List

No.	Item	Material Description
1	Core	S2K T4.3 × 2.5 × 2.8
2	Wire	Ø0.3mm × 2P 2UEWF 155°C
3	Solder (Lead Free)	Sn99.3%Cu0.7%
4	Base	BG406-1 LCP4008

Part Number Table

Description	Part Number
Choke, common mode, 40µH, 0.5A	MCBS3019P-400U

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