Common Mode Choke



RoHS Compliant

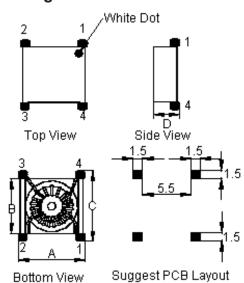




| | L ₁₋₄ | 90U . E00/ 3E0/ | |
|------------------------|------------------------------------|------------------|--|
| 1kHz 0.25V | L ₂₋₃ | 80µH +50% -35% | |
| | L ₁₋₄ -L ₂₋₃ | 3μH (Max.) | |
| at 25°C | DCR ₁₋₄ | 60mO (May) | |
| at 25 C | DCR ₂₋₃ | 60mΩ (Max.) | |
| 100MHz | Z | 1.34KΩ (Typical) | |
| Coil-Coil DC 1,000 2mA | Hi-pot | 3S (Min.) | |

Operating temperature: -20°C to +85°C

Configurations and Dimensions



| Α | 8.3 ±0.5mm | |
|---|------------|--|
| В | 7 ±0.5mm | |
| С | 10 ±0.5mm | |
| D | 5 ±0.5mm | |

Dimensions : Millimetres

Test Data for Mechanical

| Test Item | A mm | B mm | C mm | D mm |
|---------------|----------|---------|---------|---------|
| Specification | 8.3 ±0.5 | 7 ±0.5 | 10 ±0.5 | 5 ±0.5 |
| 1 | 8.24 | 7.03 | 10.03 | 4.99 |
| 2 | 8.2 | 7 | 10.02 | 5.02 |
| 3 | 8.25 | 7.04 | 10.03 | 5.03 |
| 4 | 8.23 | 7.01 | 10.04 | 5.04 |
| 5 | 8.2 | 7 | 10.01 | 5.05 |
| Average | 8.22 | 7.02 | 10.03 | 5.03 |

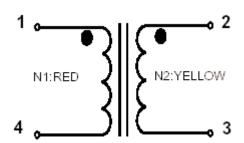
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Common Mode Choke



Schematic Diagram



Note:

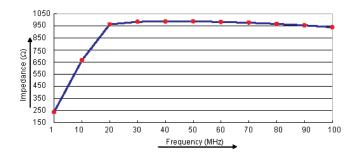
1-4.Wire Ø0.25mm × 1P 2UEWF 155°C × 12TS (Reference)

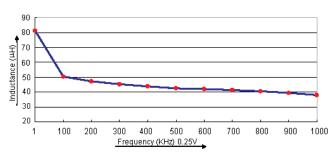
2-3.Wire Ø0.25mm × 1P 2UEWF 155°C × 12TS (Reference)

Test Data for Electrical

| Test Item | L ₁₋₄ µH | L ₂₋₃ µH | L _{1-4-L2-3} µH | DCR ₁₋₄ mΩ | DCR ₂₋₃ mΩ | 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 | 80 +50% -35% | 80 +50% -35% | 3 (Max.) | 60 (Max.) | 60 (Max.) | 1.34 (Typical) | 3 (Min.) |
| 1 | 88.7 | 88.6 | | 47.51 | 46.47 | 1.036 | OK |
| 2 | 86.4 | 86.3 | 0.1 | 46.89 | 46.48 | 1.084 | OK |
| 3 | 86.7 | 86.6 | Ì | 47.35 | 46.96 | 0.862 | OK |
| 4 | 87.7 | 87.7 | 0 | 46.73 | 46.92 | 0.863 | OK |
| 5 | 92.4 | 92.3 | 0.1 | 47.1 | 46.78 | 0.812 | OK |
| Average | 88.38 | 88.3 | 0.08 | 47.12 | 46.72 | 0.93 | OK |

Electric Characteristics





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Common Mode Choke



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, 80μH, 60mΩ | MCBS3019P-800U | |

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