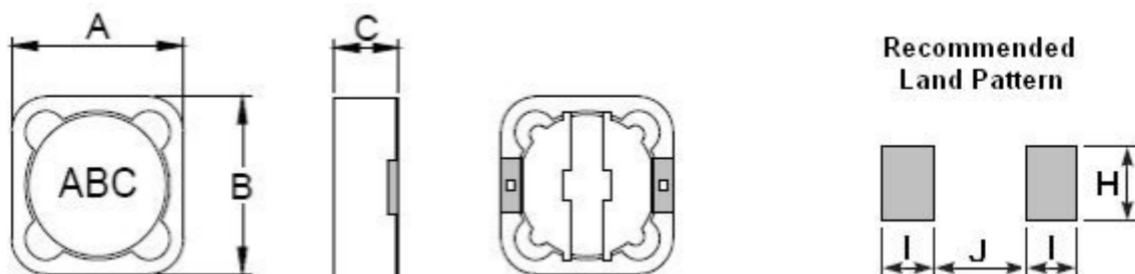


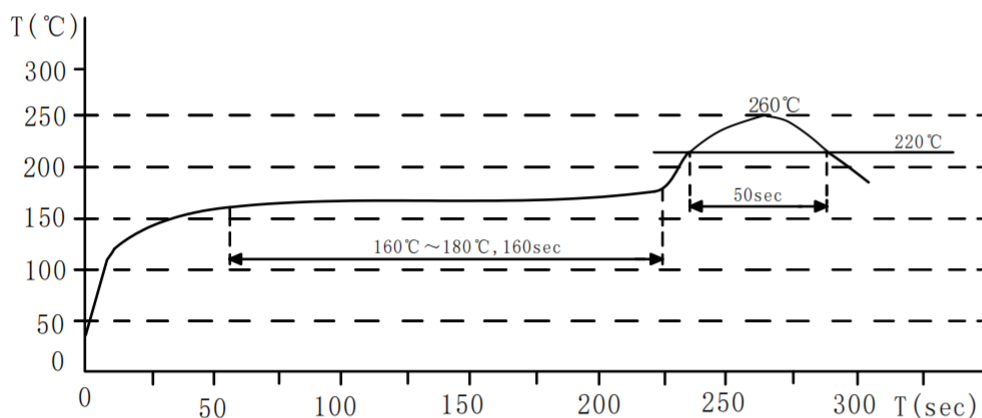
Common Mode Chokes

◆Dimensions:(Unit:mm)



| Series | A Max | B Max | C Max | I Typ | J Typ | H Typ |
|----------|-------|-------|-------|-------|-------|-------|
| SMW1205S | 12.5 | 12.5 | 6.0 | 2.2 | 7.4 | 5.2 |

◆Recommended Reflow Condition:



※ Reflow soldering condition

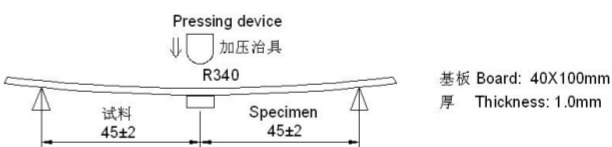
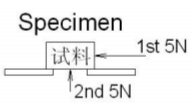
We recommend infrared ray as heat source of reflow bath.

However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it

◆ Specifications:

| Part No | Test Frequency | Inductance(uH) | DCR (Ω) Max | Isat (A) Max | Irms (A) Max |
|----------------|----------------|----------------|----------------------|--------------|--------------|
| SMW1205S1R0NTT | 100KHz/0.3V | 1.0 | 0.015 | 15.0 | 9.0 |
| SMW1205S2R2NTT | 100KHz/0.3V | 2.2 | 0.020 | 13.0 | 8.0 |
| SMW1205S3R3NTT | 100KHz/0.3V | 3.3 | 0.025 | 10.0 | 7.5 |
| SMW1205S4R7NTT | 100KHz/0.3V | 4.7 | 0.030 | 8.0 | 5.6 |
| SMW1205S6R8NTT | 100KHz/0.3V | 6.8 | 0.032 | 7.0 | 4.8 |
| SMW1205S100MTT | 100KHz/0.3V | 10.0 | 0.035 | 6.5 | 4.0 |
| SMW1205S150MTT | 100KHz/0.3V | 15.0 | 0.042 | 5.5 | 3.0 |
| SMW1205S220MTT | 100KHz/0.3V | 22.0 | 0.045 | 4.0 | 2.8 |
| SMW1205S330MTT | 100KHz/0.3V | 33.0 | 0.075 | 3.8 | 2.3 |
| SMW1205S470MTT | 100KHz/0.3V | 47.0 | 0.110 | 3.0 | 1.8 |
| SMW1205S560MTT | 100KHz/0.3V | 56.0 | 0.125 | 2.7 | 1.7 |
| SMW1205S680MTT | 100KHz/0.3V | 68.0 | 0.135 | 2.5 | 1.5 |
| SMW1205S101MTT | 100KHz/0.3V | 100 | 0.185 | 2.1 | 1.3 |
| SMW1205S121MTT | 100KHz/0.3V | 120 | 0.240 | 1.8 | 1.1 |
| SMW1205S151MTT | 100KHz/0.3V | 150 | 0.260 | 1.5 | 1.0 |
| SMW1205S221MTT | 100KHz/0.3V | 220 | 0.420 | 1.2 | 0.8 |
| SMW1205S331MTT | 100KHz/0.3V | 330 | 0.740 | 1.1 | 0.68 |
| SMW1205S471MTT | 100KHz/0.3V | 470 | 1.000 | 0.9 | 0.58 |
| SMW1205S681MTT | 100KHz/0.3V | 680 | 1.200 | 0.8 | 0.48 |
| SMW1205S102MTT | 100KHz/0.3V | 1000 | 1.600 | 0.7 | 0.41 |
| SMW1205S152MTT | 100KHz/0.3V | 1500 | 2.700 | 0.5 | 0.32 |
| SMW1205S202MTT | 100KHz/0.3V | 2000 | 3.500 | 0.45 | 0.25 |

◆ Reliability Testing Items

| Part No | Item | Specification | Condition |
|---------|-------------------|---|---|
| 1 | Bending test | Change from an initial value L : within±10% | <p>Apply pressure gradually in the direction of the arrow at a rate of about 0.5mm/s until bent depth reaches 3mm and hold for 30±5s.</p>  <p>Pressing device ↓ 加壓治具 R340 基板 Board: 40X100mm 厚 Thickness: 1.0mm 试料 45±2 Specimen 45±2</p> |
| 2 | Adhesion strength | Change from an initial value L : within±10% | <p>A static load using a R0.5 pressing tool shall be applied the arrow and to the body of the specimen in the direction of the arrow and shall be hold for 60±5s. Measure after removing pressure.</p>  <p>Specimen 试料 1st 5N 2nd 5N</p> |
| 3 | Vibration | Change from an initial value L : within±10% | <p>The specimen shall be subjected to a vibration of 1.5mm amplitude, sweep frequency 10~55Hz (10Hz to 55Hz to 10Hz in a period of one minute) for 1 h in each of 3(X,Y,Z) axes</p> |
| 4 | Mechanical shock | Change from an initial value L : within±10% | <p>Peak acceleration: 981 m/S² Duration of pulse: 6ms 3 times in each of 3(X,Y,Z)axes. The specimen must be fixed on test board. Three successive shock shall be applied in the perpendicular direction of each surface of the specimen</p> |
| 5 | Free fall test | Change from an initial value L : within±10% | <p>The specimen must be fixed on test board. It must be equipped with instruments of which weight is 500g. Then it shall be fallen freely from 1m height to rigid wood 3 times in each of three axes</p> |
| 6 | Solder ability | New solder shall cover 90% minimum of the surface immersed. | <p>Terminals shall be immersed for 5 to 10 seconds in flux at room temperature. Dip sample into solder bath containing molten solder at 245±5°C for 3±0.5 seconds.</p> |

| Part No | Item | Specification | Condition |
|---------|------------------------------|---|--|
| 7 | Resistance to soldering heat | Change from an initial value L : within $\pm 10\%$ | Test method Reflow soldering method Preheat 150~180°C 90 \pm 30s Peak temp 250(+ 5,-0)°C (230°Cmin , 30 \pm 10s) The specimen shall be subjected to the reflow process under the above condition 2 times. Test board shall be 0.8mm thick. Base material shall be glass epoxy resin. Measurement The specimen shall be stored at standard atmospheric conditions for 1 h in prior to the measurement. |
| 8 | Dielectric strength | Without damage. | 100V DC shall be applied for 60s between the terminal and the core. |
| 9 | Insulation resistance | 100m Ω or more. | 100V DC shall be applied between the terminal and the core. |
| 10 | Low temperature | Change from an initial value L : within $\pm 10\%$ | The specimen shall be stored at a temperature of -40 ± 3 °C for 500 \pm 12h. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement Measurement shall be made within 1h. |
| 11 | Dry heat | Change from an initial value L : within $\pm 10\%$ | The specimen shall be stored at a temperature of 125 ± 2 °C for 500 \pm 12h. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h. |
| 12 | Dump heat | Change from an initial value L : within $\pm 10\%$. | The specimen shall be stored at a temperature of 125 ± 2 °C with relative humidity of 90 ~ 95% for 500 \pm 2h. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h. |

| Part No | Item | Specification | Condition |
|---------|-----------------------------|--|---|
| 13 | Temperature cycle | Change from an initial value L : within $\pm 10\%$ | The specimen shall be subjected to 500 continuous cycles of temperature change of -40°C for 30 min and 125°C for 30 min with the transit period of 2min or less. Then it shall be stabilized under standard atmospheric conditions for 1 h before measurement. Measurement shall be made within 1h. |
| 14 | Temperature drift | Inductance temperature Coefficient 2000 ppm/ $^{\circ}\text{C}$ or less | To be measured in the range of -40°C to 125°C . |
| 15 | Operating temperature range | $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ | Including self temperature rise. |
| 16 | Storage temperature range | $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ | With taping |

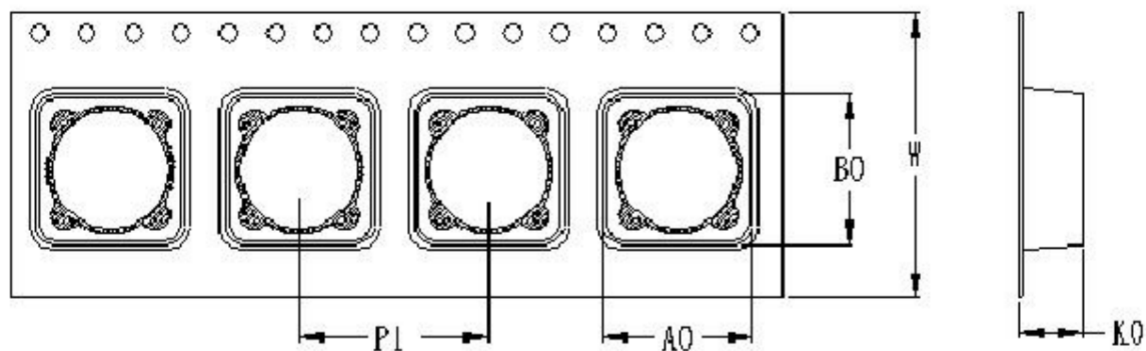
※Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions in making measurements and test as follows;

Ambient temperature : 5°C to 35°C , Relative humidity: 45% to 85%, Air pressure: 86kPa to 106kPa

If more strict measurement is required, measurement shall be made within following limits;

Ambient temperature : $20 \pm 2^{\circ}\text{C}$, Relative humidity: $65 \pm 5\%$, Air pressure: 86kPa to 106kPa

◆ Package


| Series | P1 | W | A0 | B0 | K0 | Reel |
|----------|----------|----------|----------|----------|----------|--------|
| SMW1205S | 16.0±0.1 | 24.0±0.3 | 12.6±0.2 | 12.6±0.2 | 6.2±0.15 | 500PCS |