

## RELIABILITY AND TEST CONDITIONS

### Customized Component (SWA Series)

Items	Requirements	Test Methods and Remarks
1. Adhesive strength	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Apply the tensile 30N force progressively on the width and height of winding respectively. The direction of each force is perpendicular to them and parallel to the plate</li> <li>② Keep time: 30<math>\pm</math>3s</li> </ul>
2. Thermal Shock	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Temperature and time: -25<math>\pm</math>3<math>^{\circ}</math>C for 30<math>\pm</math>3 min<math>\rightarrow</math>85<math>^{\circ}</math>C for 30<math>\pm</math>3min</li> <li>② Transforming interval: 5 minute</li> <li>③ Tested cycle: 100 cycles</li> <li>④ The chip shall be stabilized at normal condition for 1~2 hours before measuring</li> </ul>
3. Resistance to Low Temperature	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Temperature: -25<math>\pm</math>3<math>^{\circ}</math>C</li> <li>② Duration: 96<math>^{\pm 4}</math> hours</li> <li>③ The chip shall be stabilized at normal condition for 1~2 hours before measuring</li> </ul>
4. Resistance to High Temperature	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Temperature: 85<math>\pm</math>2<math>^{\circ}</math>C</li> <li>② Duration: 96<math>^{\pm 4}</math> hours</li> <li>③ The chip shall be stabilized at normal condition for 1~2 hours before measuring.</li> </ul>
5. Damp Heat	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Temperature: 60<math>\pm</math>2<math>^{\circ}</math>C</li> <li>② Humidity: 90% to 95%RH</li> <li>③ Duration: 96<math>^{\pm 4}</math> hours</li> <li>④ The chip shall be stabilized at normal condition for 1~2 hours before measuring</li> </ul>
6. Package Drop	<ul style="list-style-type: none"> <li>① No visible mechanical damage.</li> <li>② Inductance change: Within <math>\pm 5\%</math></li> <li>③ DCR change: Within <math>\pm 10\%</math></li> </ul>	<ul style="list-style-type: none"> <li>① Put the production in the carton</li> <li>② Free fall from 800mm in height</li> <li>③ Each faces of carton fall one time</li> </ul>
7. Solderability	75% or more of electrode area shall be coated by new solder.	<ul style="list-style-type: none"> <li>① The test samples shall be dipped in flux, and then immersed in molten solder.</li> <li>② Solder temperature: 320<math>\pm</math>5<math>^{\circ}</math>C</li> <li>③ Duration: 5<math>\pm</math>1 sec.</li> <li>④ Solder: Sn/3.0Ag/0.5Cu</li> <li>⑤ Flux: 25% resin and 75% ethanol in weight</li> <li>⑥ Immersion depth: all sides of mounting terminal shall be immersed</li> </ul>
8. Resistance to Soldering Heat	① 75% or more of electrode area shall be coated by new solder.	<ul style="list-style-type: none"> <li>① The test samples shall be dipped in flux, and then immersed in molten solder.</li> <li>② Solder temperature: 320<math>\pm</math>5<math>^{\circ}</math>C</li> <li>③ Duration: 5<math>\pm</math>1 sec.</li> <li>④ Solder: Sn/3.0Ag/0.5Cu</li> <li>⑤ Flux: 25% resin and 75% ethanol in weight</li> <li>⑥ Immersion depth: all sides of mounting terminal shall be immersed</li> </ul>