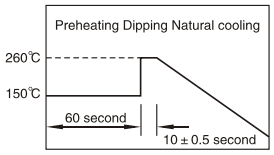
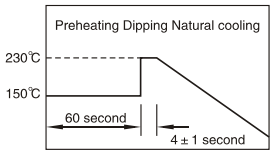
RELIABILITY AND TEST CONDITIONS

<table>
<tr><th>Item</th><th>Performance</th><th>Test Condition</th></tr>
<tr><td>Operating Temperature</td><td>−55~+125℃</td><td></td></tr>
<tr><td>Storage temperature and Humidity range</td><td>−55~+125℃</td><td></td></tr>
<tr><td colspan="3">Electrical Performance Test</td></tr>
<tr><td>Inductance</td><td rowspan="2">Refer to standard electrical Characteristics list.</td><td>HP428A,CH11025,CH3302,CH1320, CH1320S,LCR Meter.</td></tr>
<tr><td>DCR</td><td>CH16502,Agilent33420A Micro−OhmMeter</td></tr>
<tr><td>Saturation Current(Isat)</td><td>ΔL=20%</td><td>Saturation Current (Isat) will cause Lo to drop approximately(ΔL%)</td></tr>
<tr><td>Heat Rated Current (Irms)</td><td colspan="2">Heat Rated Current (Irms)will cause the coil temperature rise approximately ΔT(℃) without core loss
1.Applied the allowed DC current.
2.Temperature measured by digital surface thermometer</td></tr>
<tr><td>Solder Heat Resistance</td><td>Appearance:
No significant abnormality.
Inductance change:
Within ± 20%
  </td><td>Preheat: 150℃,60sec.
Solder: Sn−Ag3.0−Cu0.5
Solder Temperature: 260+/−5℃
Flux for lead free: rosin
Dip time:10 ± 0.5sec.</td></tr>
<tr><td>Solderability Test</td><td>More than 90%of the terminal electrode should be covered with solder.
  </td><td>Preheat:150℃,60sec.
Solder:Sn−Ag3.0−Cu0.5
Solder temperature:230+/−5℃
Flux for lead free:rosin
Dip time:4 ± 1sec.</td></tr>
<tr><td colspan="3">Reliability Test</td></tr>
<tr><td>High Temperature Life Test</td><td>Appearance:no damage.
Inductance :within ± 20% of initial value.
No disconnection or short circuit.</td><td>Temperature:125 ± 5℃
Duration:500 ± 12hrs.
Measured at room temperature after placing for 2 to 3hrs.</td></tr>
<tr><td>Low Temperature Life Test</td><td>Appearance:no damage.
Inductance:within ± 20% of initial value.
No disconnection or short circuit.</td><td>Temperature:−55 ± 5℃.
Duration:500 ± 12hrs.
Measured at room temperature after placing for 2 to 3hrs.</td></tr>
<tr><td>Thermal shock</td><td>Appearance:
no damage.
Inductance:
within ± 20% of initial value.
No disconnection or short circuit.
<table>
<tr><th>class</th><th>Temperature</th><th>Time</th></tr>
<tr><td>1</td><td>−55℃ ± 3℃</td><td>30 ± 3</td></tr>
<tr><td>2</td><td>normal</td><td>within3</td></tr>
<tr><td>3</td><td>+125℃ ± 3℃</td><td>30 ± 3</td></tr>
<tr><td>4</td><td>normal</td><td>within3</td></tr>
</table></td><td>Condition for 1 cycle.
Step1:−55 ± 3℃ 30 ± 3 min.
Step2:Room temperature within 3 min.
Step3:+125 ± 3℃ 30 ± 3 min.
Step2:Room temperature within 3 min.
Number of cycles : 5.
Measured at room temperature after placing for 2 to 3 hrs</td></tr>
<tr><td>Humidity Resistance</td><td>Appearance: no damage.
Inductance: within ± 20% of initial value.
No disconnection or short circuit.</td><td>Humidity :90~95%RH
Temperature:40±5℃
Applied current: rated current.
Duration:500±12hrs.
Measured at room temperature after placing for 2to 3hrs.</td></tr>
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