

Reliability Test – JWC Series

SMD Open Type Wire Wound Ceramic Chip Inductors - JWC Series

1-1.Mechanical Performances

No	Item	Specification	Test Method
1-1-1	Vibration Test (Low Frequency)	1.Appearance: No damage 2. Inductance: within $\pm 0\%$ of initial value 3.Q change: within $\pm 0\%$ of initial value	1. Test Device Shall Be Soldered On The Substrate. 2. Oscillation Frequency: 10 to 55 to 10Hz for 1min. 3. Amplitude: 1.5mm 4. Time: 2hrs For Each Axis (X, Y & Z), Total 6hrs
1-1-2	Resistance To Soldering Heat	Appearance: No Damage	1. Pre-Heating: 150 , 1min. 2. Solder Composition: Sn/Pb = 63/37. 3. Solder Temperature: 260 \pm . 4. Immersion Time: 10 \pm sec.
1-1-3	Solder ability	The Electrodes Shall Be At Least 90% Covered With New Solder Coating	1. Pre-Heating: 150 , 1min. 2. Solder Composition: Sn/Pb = 63/37. 3. Solder Temperature: 230 \pm . 4. Immersion Time: 4 \pm sec.
1-1-4	Component Adhesion (Push Test)	2 Lbs. For 0603 4 Lbs. For The Rest	The Device Should Be Reflow Soldered (230 \pm 5 For 10 Seconds) To A Tinned Copper Substrate. A Force Gauge Should Be Applied To The Side Of The Component. The Device Must Withstand A Minimum Force Of 2 Or 4 Pounds Without A Failure Of The Termination Attached To Component.

1-2.Environmental Performances

No	Item	Specification	Test Method															
1-2-1	Temperature Cycle	Appearance: No Damage Inductance: within $\pm 0\%$ of initial value Q change: within $\pm 0\%$ of initial value	One Cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature ()</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 \pm</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 \pm</td> <td>15</td> </tr> <tr> <td>3</td> <td>85 \pm</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 \pm</td> <td>15</td> </tr> </tbody> </table> Total: 5 cycles Measured After Exposure In The Room Condition For 1Hrs	Step	Temperature ()	Time (min.)	1	-25 \pm	30	2	25 \pm	15	3	85 \pm	30	4	25 \pm	15
Step	Temperature ()	Time (min.)																
1	-25 \pm	30																
2	25 \pm	15																
3	85 \pm	30																
4	25 \pm	15																
1-2-2	Humidity Resistance		Temperature: 40 \pm Relative Humidity: 90 ~ 95% Time: 100Hrs Measured After Exposure In The Room Condition For 1Hrs															
1-2-3	High Temperature Resistance		Temperature: 125 \pm Time: 50Hrs Measured After Exposure In The Room Condition For 1Hrs															
1-2-4	Low Temperature Resistance		Temperature: -40 \pm Time: 50Hrs Measured After Exposure In The Room Condition For 1Hrs															
1-2-5	High Temperature Load Life	There Should Be No Evidence Of Short Or Open Circle	Temperature: 85 \pm Load: Allowed DC Current Time: 1000Hrs															

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No	Item	Specification	Test Method
1-2-6	Humidity Load Life		Temperature: 40 ± Relative Humidity: 90 ~ 95% Load: Allowed DC Current Time: 1000Hrs