产品规格书
PROUCT APPROVAL SHEET

客户名称 Customer		客户编号		日期Date	
规格型号 Product Name	CC4-0805N101J100V		生产编号Lot No		

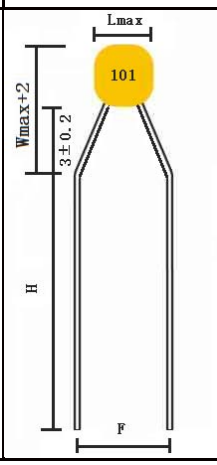
电性参数

规格型号 ProductName	容量范围 Capacitance	损耗(DF)	绝缘电阻(IR)	耐压范围 BreakdownVoltage	结果Result
CC4-0805N101J100V	20.9～23.1pF	≤0.15%	≥1×10¹⁰Ω	≥2.5*UrVdc	OK

订货代码 Ordering Code

A	产品类别Product Type				B	本体外形尺寸规格（长×宽）Nominal Body Size（Length ×Width） A	
	CC4	CC4 I 类径向引线独石电容器 ClassI Dielectric Radial Leaded MLCC				0805	0.16×0.08
C	温度特性Temperature Characteristic				D	标称容量Nominal Capacitance C	
	B	NPO	0±30PMM/℃	-50～+125 ℃		101	100pF
E	容量偏差Tolerance				F	额定电压Rated Voltage	
	K	±5%					100V
G	包装方式Packaging Style				H	脚距（单位：mm）Lead Space（Unit：mm）	
	P	散包装 500PCS/包Bulk 500PCS/BAG				F3	5.08mm

尺寸、工作电压及容量关系表 Size Code and Voltage VS Capacitance

尺寸规格 SizeCode	外形Shape	尺寸（单位：mm）Dimensions（Unit：mm）					工作电压 Voltage	标称容量范围Available Capacitance Range		
		F±0.5	H±0.5	Lmax	Wmax	Tmax		C0G (NP0)	X7R	Y5V/Z5U
0805		5.08	22	4.2	5.0	3.8	100V	0R5~332	101~105	102~105

通用型引线MLCC可靠性及测试方法
Reliability and Test Method for General Leaded MLCC

<table>
<tr><td>项目
Item</td><td colspan="2">技术要求
Technical Specification</td><td colspan="4">测试方法和备注
Test Method and Remarks</td></tr>
<tr><td rowspan="6">容量
Capacitance
(C)</td><td rowspan="3">I类
Class I</td><td rowspan="3">应符合指定的误差级别
within the specified tolerance.</td><td>标称容量
Capacitance</td><td>测试频率
Measuring Frequency</td><td colspan="2">测试电压
Measuring Voltage</td></tr>
<tr><td>≤1000pF</td><td>1MHZ±10%</td><td colspan="2" rowspan="2">1.0±0.2V</td></tr>
<tr><td>＞1000 pF</td><td>1KHZ±10%</td></tr>
<tr><td rowspan="3">II类
Class II</td><td rowspan="3">应符合指定的误差级别
within the specified tolerance.</td><td colspan="4">对于Ⅱ类电容器，测试前应先预处理
The capacitance should be pretreated before measured(only forclass Ⅱ).</td></tr>
<tr><td>测试频率
Measuring Frequency</td><td colspan="2">测试电压
Measuring Voltage</td></tr>
<tr><td>1KHZ±10%</td><td>B:
1.0±0.2V</td><td>E/ Y(F)
0.3±0.2V</td></tr>
<tr><td rowspan="5">损耗角正切
Dissipation Factor
(DF)</td><td rowspan="3">I类
Class I</td><td rowspan="3">C_R≥50pF
DF≤0.15% C_R
＜50pF
DF≤1.5[(150/C_R)+7] X10^{-4}</td><td>标称容量
Capacitance</td><td>测试频率
Measuring Frequency</td><td>测试电压
Measuring Voltage</td></tr>
<tr><td>≤1000pF</td><td>1MHZ±10%</td><td rowspan="2">1.0±0.2V</td></tr>
<tr><td>＞1000 pF</td><td>1KHZ±10%</td></tr>
<tr><td rowspan="2">II类
Class II</td><td>B</td><td>DF ≤3.5%</td><td colspan="3">测试频率:1KHZ±10%; 测试电压: 1.0±0.2V
MeasuringFrequency Measuring Voltage</td></tr>
<tr><td>E/
Y
(F)</td><td>≤7.5% (C_R≤0.1uF)
≤10.0%
(1uF ＞ C_R ＞0.1uF)
≤15% (C_R≥1uF)</td><td colspan="3">测试频率: 1KHZ±10%
Measuring Frequency
测试电压:0.3±0.2V
MeasuringVoltage</td></tr>
<tr><td rowspan="2">绝缘电阻
Insulation Resistance</td><td>I类
Class I</td><td colspan="2">C≤10nF
IR≥10000MΩ
C>10nF
R.C≥100 ΩF</td><td colspan="3" rowspan="2">测试电压:额定电压
Measuring Voltage: Rated Voltage
测试时间: 60±5秒
Duration: 60±5s</td></tr>
<tr><td>II类
Class II</td><td colspan="2">C≤25nF
IR≥4000MΩ
C>25nF
R.C≥100 ΩF</td></tr>
</table>

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Item</th><th>技术要求
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Test Method and Remarks</th></tr>
<tr><td rowspan="2">耐电压
Withstanding Voltage</td><td rowspan="2">不应有介质被击穿或损伤
No breakdown or damage.</td><td>端子间Between terminals：
测试电压：持续时间：5±1秒
Measuring Voltage ：　　Duration：5±1s
Ⅰ类:300%额定电压
ClassⅠ:300% Rated voltage
Ⅱ类:250%额定电压
ClassⅡ:250% Rated voltage
充/放电电流不应超过50mA
The charge/ discharge current is less than 50mA.</td></tr>
<tr><td>端子与外装间Between terminals and body：
施加电压：2.5U_R　　持续时间：1~5s
Voltage: 2.5 timesratedvoltage　　Duration：1~5s
金属制小球法 Small metallic ballmethod
将电容器本体插入盛满直径为1mm的金属小球的容器中，但保留距端头处2mm的本体不插入。试验电压施加在短路回路端子和金属小球之间。
Small metallic balls with 1mm diameters shall be put in a vessel and the test capacitor shall be submerged except 2mm from the top of its component body and the terminals. The test voltage shall be applied between the short-circuited terminals and the metallic balls.</td></tr>
<tr><td>可焊性
Solder ability</td><td>上锡率应大于75%
Lead wire shall be at least 75% covered with a new soldercoating.</td><td>将电容器引线浸入含有2 5 % 松香的酒精溶液中， 然后浸入温度为: 230±5℃的金属焊锡（63Sn/37Pb）中 2±0.5秒，注意：电容器本体底面距离锡面约1.5~2mm，
The terminal of capacitor is dipping into a 25% rosin solution of ethanol and then into molten solder(63Sn/37Pb）of 230±5℃ for 2±0.5s. In both cases the depth of dipping is up to about 1.5~2mm from the terminal body.</td></tr>
<tr><td>耐焊接热
Resistance to Soldering Heat</td><td><table><tr><th>项目
Item</th><th>ΔC/C≤</th></tr><tr><td>Class I</td><td>± 2.5% or
± 0.25pF</td></tr><tr><td>B</td><td>±10%</td></tr><tr><td>E / Y(F)</td><td>±20%</td></tr></table>外观无可见损伤
No significant abnormality in appearance.</td><td>锡温：260±5℃　　时间：10±1s
Solder temperature:260±5℃　　Duration: 10±1s
浸入条件：将电容器插入厚度为1.6mm，孔径为1.0mm的PC板。
Immersed conditions: Inserted into the PC board (with t=1.6mm, hole=1.0mm diameter)
对于I类介质，试验后，应在标准条件下恢复4~24小时后才测试。
Recovery: For class I, 4 to 24 hours of recovery under the standard condition aftertest.
对于II类介质，在试验前应先进行如下预处理： 150(-10,+0) ℃，1小时，接着在标准条件下恢复48 ±4 小时。
Preconditioning（Class II）: 1 hour of preconditioning at 150(-10,+0) ℃, followed by 48 ±4 hours of recovery under the standard condition.
恢复：对于II类介质试验后，应在标准条件下恢复48 ±4小时后才测试。
Recovery（Class II）: 48 ±4 hours of recovery under the standard condition after test.</td></tr>
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<tr><td rowspan="4">高温负荷
High Temperatu-re Loading Test</td><td>外观无可见损伤
No significant abnormality in appearance.</td><td>温度Temperature
<table><tr><td>CG（N）/</td><td>X7R</td><td>Y5V</td><td>Z5U</td></tr><tr><td colspan="2">125(-0,+3)℃</td><td colspan="2">85(-0,+3) ℃</td></tr></table></td></tr>
<tr><td>容量变化Capacitance Change:
I类介质Class I:
≤ ±3% or ±0.3pF
取较大值Whichever is larger.
II类介质Class II:
B:≤ ±12.5%
E / F(Y): ≤ ±30%</td><td rowspan="3">电压：1.5倍额定电压
Applied voltage: 1.5 times rated voltage
充放电流不超过50mA
The charge/ discharge current is less than 50mA.
时间：1000（-0，+48）小时
Duration: 1000（-0，+48）hours
恢复时间：
Recovery Time：
I类介质：24 ±2小时，
Class I Dielectric : 24 ±2 hours
II类介质；48 ±4小时
Class II Dielectric: 48 ±4 hours</td></tr>
<tr><td>损耗角正切Dissipation Factor:
I类介质：小于原始值的两倍
Class I：Not more than twice of initial value.
II类介质Class II：
B: ≤ 5.0%
E / F(Y):
≤12.5% ($C_R \leq 0.1uF$)
≤15.0%(1uF ＞ C_R ＞0.1uF)
≤17.5% ($C_R \geq 1uF$)</td></tr>
<tr><td>绝缘电阻Insulation Resistance:
≥ 500MΩ or 25 Ω.F
取较小值Whichever is smaller.</td></tr>
<tr><td>耐溶剂性
Solvent Resistance</td><td>外观无可见损伤或异常,标记清晰。
No defects or abnormalities in appearance and legible marking.</td><td>溶剂温度：23±5℃
Solvent temperature:
将样品浸在溶剂中1分钟，用脱脂棉在样品有标志部位刷10次，重复3次.
put the sample into solvent 1 Min, and then take it out and brush sample’s notation area 10 times with pledget , repeat 3 times.</td></tr>
</table>

以上所示“标准条件”解释如下：

温度：5~35℃， 湿度：45~85%， 气压：86~106kPa

* Note on standard condition: " standard condition " referred to herein should be defined as follows:

5 to 35℃ of temperature, 45 to 75% of relative humidity, and 86 to 106kPa of atmospheric pressure.

若测试结果有争议时，仲裁试验用标准大气条件为：

温度：25±1℃， 相对湿度：48%~52%， 气压：86~106kPa

* When there are questions concerning measurement results:

In order to provide correlation data, the test should be conducted under a condition of 25 degrees plus/minus 1 centigrade of temperature, 48% through 52% of relative humidity and 86 through 106 kPa of atmospheric pressure.