



东莞市科雅电子科技有限公司

规格承认书

SPECIFICATIONS FOR APPROVAL

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客户名称
CUSTOMER 立创商城
规格类别
DESCRIPTION KP:双面金属化聚丙烯薄膜电容器 (MMKP82 盒式型)
科雅料号
CHIEFCON P/N KP683J1000VP15
客户料号
CUSTOMER P/N
承认编号
APPROVAL NO 2019041201
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户承认栏 CUSTOMER APPROVAL

製作 PREPARED BY	審核 CHECKED BY	核準 APPROVAL BY
		

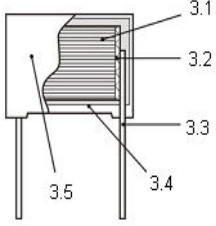
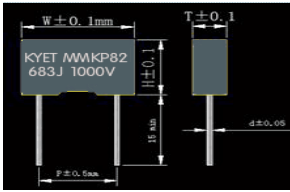
◎This specification will be invalidated assuming that it is not accepted when it is not returned within sixth months from the date of issue.

此承认书若未在发行日期起二个月内签回，将视为无效。

东莞市科雅电子科技有限公司

产品规格说明
PRODUCT SPECIFICATIONS

型号: MMKP82

NO.	项目 ITEM	说明 DESCRIPTIONS
1	承认范围 SCOPE	本规格适用于科雅之要求 This specifications cover the requirements of KYET 双面金属化聚丙烯薄膜电容器 MMKP82 Metallized Polypropylene Film capacitor
2	各测量皆于标准大气下进行 STANDARD ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS	
2.1	环境温度 AMBIENT TEMPERATURE	15°C 至 35°C (如对结果有任何疑问, 该测量环境温度应为+20 ± 5°C之间) 15°C to 35°C (If there is any doubt on the results, the measurements shall be made at +20 ± 5°C)
2.2	相对湿度 RELATIVE HUMIDITY(R.H.)	45%至 75% (如对结果有任何疑问, 该测量相对湿度应为 60% to 70%之间) 45%to 75% (If there is any doubt on the results, the measurements shall be made at 60% to 70%)
2.3	大气压力 AIR PRESSURE	86 千帕至 106 千帕之 86 kpa to 106 kpa
2.4	工作温度范围 OPERATING TEMPERATURE RANGE	于-40°C至+105°C间, 电容可在额定电压下持续运作 -40°C to +105°C for which the capacitor can be operated continuously at rated voltage.
3	结构 CONSTRUCTION	
3.1	电介质 DIELECTRIC	双面金属化聚丙烯薄膜 Metallized Polypropylene Film
3.2	喷金层 METAL SPRAY	特殊焊料 Special Solder
3.3	导线 LEAD WIRE	镀锡铜包钢线 Copper-clad Steel Wire
3.4	环氧树脂 EPOXY RESIN	UL V-0 耐燃等级
3.5	塑料外壳 PLASTIC CASE	UL V-0 耐燃等级
		
4	打印 MARKING	
4.1	制造商标志 MANUFACTURER'S SYMBOL	KYET 表示为“科雅电子科技有限公司 KYET ELECTRONICS CO., LTD”
4.2	型号或材质 TYPE OR MATERIAL	“MMKP82”代表“双面金属化聚丙烯”材质 “MMKP82” stands for “Metallized Polypropylene Film”
4.3	电容类别 CAPACITOR CLASS	“MPP” 代表“MMKP”类别 “MPPstands for “MMKP” class
4.4	静电容量 NOMINAL CAPACITANCE	容量用 EIA 三码表示 Capacitance Expressed in 3-digit (EIA) code.
4.5	容量容许差值 TOLERANCE	J (±5%) , K(±10%) , M(±20%)
4.6	额定电压 RATED VOLTAGE	400,450,630,800,1000,1600,2000 VDC
4.7	工作温度范围 Operating Temperature Range	-40°C~105°C
4.8	散逸因素 (损耗角正切)	Max 0.1%(at 1KHZ, 25°C)
4.9	绝缘电阻 Insulation Resistance	CR≤0.33μF IR≥10000MΩ UR≤100V CR > 0.33 μ F IR≥5000MΩ / μ F UR≤100V
印字实例 example 		

5	电气特性 ELECTRICAL CHARACTERISTICS			
NO.	项目 ITEM		说明 DESCRIPTIONS	
5.1	耐压 (TV) Withstand Voltage	引线之间 Between Terminals	应无异常 Shall be no abnormality	施加 1.6 倍额定直流电压测试 60 秒(电压应以不超过 150V/s 的速率从零升高到试验电压, 时间应从达到电压时计算, 在结束时, 电压应减少到接近零, 并且电容器应通过一个适当的电阻放电) Apply 1.5*Ur (DC) for 60 sec (Should be no more than 150V/s rate increased from zero to the test voltage, testing time, meets the test voltage should be calculated at the end of the trial, the voltage should be reduced to zero and the capacitor through a resistor of appropriate discharge.
		引线与外壳之间 Between Terminals & Enclosure	应无异常 Shall be no abnormality	2 倍额定电压+500V, 测试 2 到 5 秒 最小值 2000VDC Apply 2*Ur+500V for 2 to 5 sec. Min. 2000VDC
5.2	介质损耗 (DF) Dissipation Factor		于 1KHz 时 $\leq 0.001(0.1\%)$ $\leq 0.001(0.1\%)$ at 1 KHz	测量频率: $\pm 2\%$; 测量电压: ≤ 1 rms Measuring Frequency: $\pm 2\%$ Measuring Voltage: ≤ 1 Vrms..
5.3	容量 (CAP) Capacitance		环境温度(于 $+20 \pm 5^\circ\text{C}$)。 Within the tolerance specified (at $+20 \pm 5^\circ\text{C}$).	测量频率: $\pm 2\%$; 测量电压: ≤ 1 rms Measuring Frequency: $\pm 2\%$ Measuring Voltage: ≤ 1 Vrms..
5.4	绝缘电阻 (I.R.) Insulation Resistance		$\geq 10,000$ Mohm ($C \leq 0.33\mu\text{f}$) 容值 $\leq 0.33\mu\text{f}$ 时, 绝缘电阻 $\geq 10,000\text{M}\Omega$ $\geq 5,000$ Mohm* $\mu\text{F}/\text{C}$ ($C > 0.33\mu\text{f}$) 容值 $> 0.33\mu\text{f}$ 时, 绝缘电阻 $\geq 5,000\text{M}\Omega * \mu\text{F} / \text{C}$	测试电压 100 伏 充电时间 60 $\pm$ 5 秒。 Vt=100 VDC Charge Time : 60 $\pm$ 5 sec.
5.5	焊料附着性 Soldering Property		焊料覆盖面积应超过导线表面 圆周 90%。 More than 90% of circumferential surface of lead wire shall be covered with new solder.	焊接温度为: $+260 \pm 5^\circ\text{C}$ 浸焊时间为: 2 ± 0.5 秒 Soldering temperature: $+260 \pm 5^\circ\text{C}$ Immersion duration: 2 ± 0.5 sec.
6	机械特性 MECHANICAL CHARACTERISTICS			
6.1	引线强度 Terminal Strength	引线强度 Tensile Strength	应无异常。 Shall be no abnormality	沿着引出方向, 施加 1 公斤力量, 保持 10 $\pm$ 1 秒。 Apply 1.0Kg for 10 $\pm$ 1 sec. to the terminal in the axial direction and acting in a direction away from the body.

7	持久性特性 ENDURANCE CHARACTERISTICS			
NO.	项目 ITEM		说明 DESCRIPTIONS	
7.1	温度变化循环 Temperature Cycle	外观 Appearance	应当无显著变化 Shall be no remarkable change	共 5 次温度循环测试, 循环条件: 1. +20 ± 2°C 持续 3 分钟 2. -40 ± 3°C 持续 10 分钟 3. +20 ± 2°C 持续 3 分钟 4. +100 ± 2°C 持续 10 分钟 5. +20 ± 2°C 持续 3 分钟 试验后放置于室内 1.5 ± 0.5 小时后再进行量测。 Test Temperature Cycle: Total 5 cycles. Each cycle includes 1. 20 ± 2°C for 3 min. 2. -40 ± 3°C for 10 min. 3. +20 ± 2°C for 3 min. 4. +100 ± 2°C for 10 min. 5. +20 ± 2°C for 3 min. After test, allow it stay alone for 1.5 ± 0.5 Hrs. at ordinary condition before making measurements.
		耐压 Withstand Voltage	应满足 NO.5.1 shall satisfy NO.5.1	
		容值变化率 (ΔC/C) Capacitance Change Rate	变化率小于 ±5% Within ±5% of the value before test	
		介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.	
		绝缘电阻 (I.R.) Insulation Resistance	≥50%的限制值在 NO.5.4 ≥50% of the limit value of NO.5.4	
7.2	耐干热试验 Dry Heat Resistance	外观 Appearance	应当无显著变化 Shall be no remarkable change	试验温度: +100 ± 2°C 测试时间: 16 ± 1 小时 Test Temperature: +100 ± 2°C Test Duration: 16 + 1/-0 hrs.
		耐压 Withstand Voltage	应满足 NO.5.1 Shall satisfy NO.5.1	
		容值变化率 (ΔC/C) Capacitance Change Rate	变化率小于 ±5% Within ±5% of the value before test	
		介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.	
		绝缘电阻 (I.R.) Insulation Resistance	≥50%的限制值在 NO.5.4 ≥50% of the limit value of NO.5.4	
7.3	耐干寒试验 Cold Resistance	外观 Appearance	应当无显著变化 Shall be no remarkable change	试验温度: -40 ± 3°C 测试时间: 2 ± 1 小时 Test Temperature: -40 ± 3°C Test Duration: 2 ± 1 hrs.
		耐压 Withstand Voltage	应满足 NO.5.1 Shall satisfy NO.5.1	
		容值变化率 (ΔC/C) Capacitance Change Rate	变化率小于 ±5% Within ±5% of the value before test	
		介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.	
		绝缘电阻 (I.R.) Insulation Resistance	≥50%的限制值在 NO.5.4 ≥50% of the limit value of NO.5.4	

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NO.	项目 ITEM	说明 DESCRIPTIONS
7.4	外观 Appearance	应当无显著变化 Shall be no remarkable change
	耐压 Withstand Voltage	应满足 NO.5.1 Shall satisfy NO.5.1
	容值变化率 ($\Delta C/C$) Capacitance Change Rate	变化率小于 $\pm 5\%$ Within $\pm 5\%$ of the value before test
	介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.
	绝缘电阻 (I.R.) Insulation Resistance	$\geq 50\%$ 的限制值在 NO.5.4 $\geq 50\%$ of the limit value of NO.5.4
7.5	耐湿绝缘 Damp Heat	试验温度: $+40 \pm 2^\circ\text{C}$ 试验湿度: 90% 至 95% 相对湿度 试验时间: 2 ± 1 小时 试验后放置于室内 1.5 ± 0.5 小时后再进行量测。 Test Temperature: $+40 \pm 2^\circ\text{C}$. Test Humidity: 90% to 95% R.H. Test Duration: 2 ± 1 hrs.. After test, allow it stay alone for 1.5 ± 0.5 Hrs. at ordinary condition before making measurements.
	振动试验 Vibration Resistance	外观 Appearance 应无机械性损伤 Shall be no mechanical damage. 连接强度 Connection strength 不得为短路或开路连接。 连接点应稳定。 Shall be no short-circuiting or open. The connection shall be stable.
7.6	焊接耐热 Soldering Heat Resistance	频率变化: 10-55-10Hz 振动距离: 1.5 毫米. 试验方向: X,Y,Z 试验时间: 每个方向 2 ± 1 小时 Frequency Change : 10-55-10 Hz Vibration Distance: 1.5 mm. Test Direction : X,Y,Z Test Duration : 2 ± 1 hrs each direction
	外观 Appearance	应当无显著变化 印字标志应清晰 Shall be no remarkable change. The marking shall be legible.
	端子间的耐电压值 Withstand Voltage Between Terminals	应满足 NO.5.1 Shall satisfy NO.5.1
	容值变化率 ($\Delta C/C$) Capacitance Change Rate	变化率小于 $\pm 5\%$ Within $\pm 3\%$ of the value before test
	介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.
	绝缘电阻 (I.R.) Insulation Resistance	$\geq 50\%$ 的限制值在 NO.5.4 $\geq 50\%$ of the limit value of NO.5.4
	连接元件 Connection of Element	应稳定 Shall be stable

NO.	项目 ITEM		性能 PERFORMANCE	测试条件 TEST CONDITIONS
7.7	耐久寿命 Endurance	外观 Appearance	应当无显著变化 Shall be no remarkable change	试验温度: $+85 \pm 2^{\circ}\text{C}$ 测试电压: 额定电压 试验时间: 16 小时 每小时将电压升至额定电压, 持续 0.1 秒 每个电容分别通过一个 $47\Omega \pm 5\%$ 电阻。 Test Temperature: $+85 \pm 2^{\circ}\text{C}$ Test Voltage: 100% * rated voltage. Test Duration: 16 Hrs. Once every hour the voltage For 0.1 sec. The test voltage is applied to each capacitor individually through a resistor of $47\Omega \pm 5\%$.
		耐压 Withstand Voltage	应满足 NO.5.1 Shall satisfy NO.5.1	
		容值变化率 ($\Delta C/C$) Capacitance Change Rate	变化率小于 $\pm 10\%$ Within $\pm 10\%$ of the value before test	
		介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 @ 1KHz $C_r \leq 1\mu\text{F}$: 0.008 (0.8%) max. $C_r > 1\mu\text{F}$: 0.005 (0.5%) max.	
		绝缘电阻 (I.R.) Insulation Resistance	$\geq 50\%$ 的限制值在 NO.5.4 $\geq 50\%$ of the limit value of NO.5.4	
7.8	耐湿负荷 Moisture Resistant Loading	外观 Appearance	应当无显著变化 Shall be no remarkable change	试验温度: $+40 \pm 2^{\circ}\text{C}$. 试验湿度: 87%至 93%相对湿度 测试电压: 额定电压 试验时间: 16 小时 试验后放置于室内 1.5 ± 0.5 小时后再进行量测。 Test Temperature: $+40 \pm 2^{\circ}\text{C}$. Test Humidity: 87% to 93% R.H. Test Voltage: rated voltage. Test Duration: 16 Hrs. After test, allow it stay alone for 1.5 ± 0.5 Hrs. at ordinary condition before making measurements.
		耐压 Withstand Voltage	应满足 NO.5.1 Shall satisfy NO.5.1	
		容值变化率 ($\Delta C/C$) Capacitance Change Rate	变化率小于 $\pm 5\%$ Within $\pm 5\%$ of the value before test	
		介质损耗 Dissipation Factor	于 1KHz 时: 最大值为 0.002 (0.2%) @ 1KHz: 0.002 (0.2%) max.	
		绝缘电阻 (I.R.) Insulation Resistance	$\geq 50\%$ 的限制值在 NO.5.4 $\geq 50\%$ of the limit value of NO.5.4	