東莞市智旭電子有限公司
JYH HSU（JEC）ELECTRONICS LTD.,

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SPECIFICATION FOR APPROVAL
METALLIZED POLYPROPYLENE FILM CAPACITOR (MPX)

客户名称
Customer: _____

品　　名
Part Name: X2 capacitor

客户料号
Customer Part No: _____

承認規格
Approve Item: please refer to the list

供应商料号
Part Number: please refer to the list

日　　期
Date: 2024.8.2

客户承认 Customer approval	供应商承认 Supplier admit that

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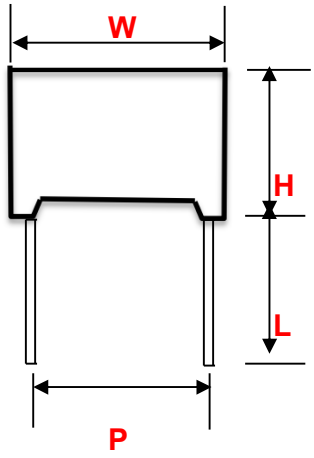
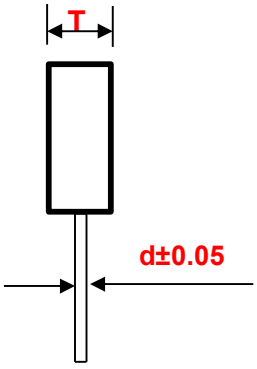
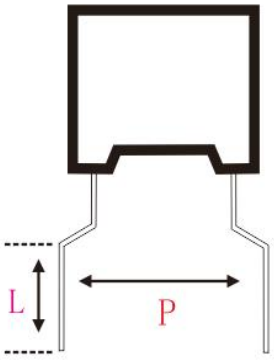
1. 规格尺寸

Specification & Dimensions







料号 P/N	品名规格 Specification	外形尺寸（单位：㎜） Dimensions and Drawings					
		W±0.5	H±0.5	T±0.5	L±1.0min	d±0.05	P±0.5
X2-154K310VACD2	X2-154K/310VAC	18	12	6	16	0.8	15
X2-103K310VACB3	X2-103K/310VAC	10	9	4	16	0.8	7.5
X2-103K310VACC2-1	X2-103K/310VAC	13	11	5	16	0.8	10
X2-224K310VACD4	X2-224K/310VAC	18	14.5	8.5	16	0.8	15
X2-332K310VACC2-1	X2-332K/310VAC	13	11	5	16	0.8	10
X2-223K310VACD1	X2-223K/310VAC	18	11	5	16	0.8	15
X2-104K310VACC2-1	X2-104K/310VAC	13	11	5	16	0.8	10
X2-473K310VACC2-1	X2-473K/310VAC	13	11	5	16	0.8	10

客户料号 Customer materials	品名规格 Specification	外形尺寸（单位：㎜） Dimensions and Drawings					
		W±0.5	H±0.5	T±0.5	L±1.0min	d±0.05	P±0.5
X2-334K310VACE2	**X2-334K/310VAC**	**26.5**	**16.5**	**7**	**16**	**0.8**	**22.5**
X2-224K310VACC3	**X2-224K/310VAC**	**13**	**12**	**6**	**16**	**0.8**	**10**
X2-684K310VACD5	**X2-684K/310VAC**	**18**	**16**	**10**	**16**	**0.8**	**15**
X2-472K310VACC2-1	**X2-472K/310VAC**	**13**	**11**	**5**	**16**	**0.8**	**10**
X2-684K310VACE2	**X2-684K/310VAC**	**26.5**	**16.5**	**7**	**16**	**0.8**	**22.5**
X2-474K310VACE2	**X2-474K/310VAC**	**26.5**	**16.5**	**7**	**16**	**0.8**	**22.5**
X2-104K310VACD4	**X2-104K/310VAC**	**18**	**14.5**	**8.5**	**16**	**0.8**	**15**
X2-474K310VACD4	**X2-474K/310VAC**	**18**	**14.5**	**8.5**	**16**	**0.8**	**15**
X2-224K310VACE2	**X2-224K/310VAC**	**26.5**	**16.5**	**7**	**16**	**0.8**	**22.5**
X2-105K310VACE6	**X2-105K/310VAC**	**26.5**	**22**	**12.5**	**16**	**0.8**	**22.5**
X2-223K310VACC2-1	**X2-223K/310VAC**	**13**	**11**	**5**	**16**	**0.8**	**10**
X2-334K310VACD3	**X2-334K/310VAC**	**18**	**13.5**	**7.5**	**16**	**0.8**	**15**
X2-104K310VACD1	**X2-104K/310VAC**	**18**	**11**	**5**	**16**	**0.8**	**15**

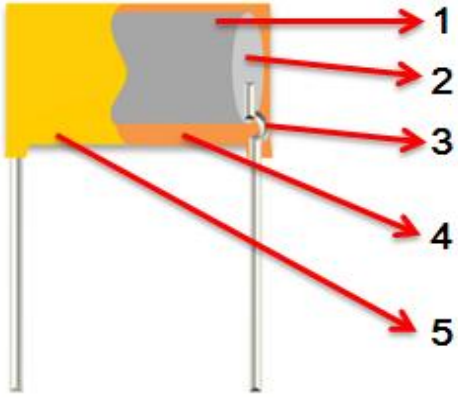
2. 产品介绍
Products Introduction

MPX 电容是由金属化聚丙烯薄膜，采用无感结构卷绕而成，引线采用镀锡铜包钢线，外部使用阻燃环氧粉体封装而成。具有良好的自愈功能和优良的阻燃性，符合UL94-V0标准。

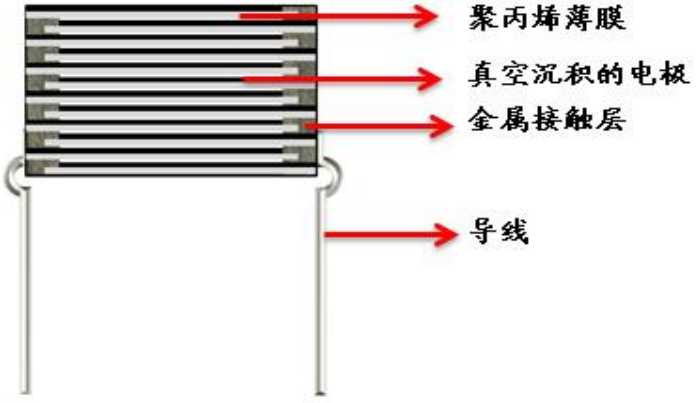
MPX are winded with metallized polypropylene film dielectric,Non-inductive construction, tinned copper wire leads,and flame retardant epoxy resin coating.
They have excellent features of self-healing and good flame retardant according to UL 94-V0

3. 产品结构和关键材料
Construction and main materials of products

Metallized film construction



The internal structure



NO	关键材料 Main Materials	材料规格 Specification	备注 Remark
1	金属化聚丙烯薄膜 Metallized polypropylene Film	MPPZAH or MPPA(4～12μm)	…
2	锌锡层 Zn,Sn line	锌+锌锡合金 Zn or Zn and Sn alloy	…
3	导线 Terminal	镀锡铜包钢线(Φ0.6 or 0.8mm) CP(tinned copper wire leads)	允许偏差 ±0.05mm
4	封装材料 Sealed Material	环氧树脂 Epoxy resin	UL94-V0
5	塑胶外壳 Plastic Case	PBT	UL94-V0

注：以上材料均符合环保要求

Note:All of the Materials are in compliance with the requirements of ROHS AND REACH.

4. 典型应用
Type application

本产品广泛应用于抑制电磁干扰和电源连接电路中，尤其是适用于使用电容器失效后不会导致触电的危险场合。

The Products Would widely used for the Interference suppressors and across-the-line capacitor applications.Suitable for used in situations where failure of the capacitor will not lead to danger of electric shock.

特别声明:本产品只能用于跨接电路抑制电源电磁干扰,其跨接两点间的额定电压≤310VAC;频率:50-60HZ,如果用在非跨接电路而导致产品损坏以及其它损失本公司不负任何责任!
不可用于阻容降压电路及其它高频、高电流电路上，使用时应在送样下订单时注明使用环境，我司专门设计

5. 特点
Features

5.1 无感结构 Non-induction construction
5.2 优良的耐湿性 High moisture-resistance
5.3 自愈性 Self-healing property
5.4 阻燃性(符合UL 94V-0) Flame retardant type（compliance with UL 94V-0）
5.5 非常小的损耗 Very small loss
5.6 优秀的频率和温度特性Excellent frequency and temperature characteristics
5.7 高绝缘阻值 High insulation resistance

6. 电气特性
Electrical specifications

如无其他说明，电气特性请参考IEC 60384-14:2005
Unless otherwise specified,electric characteristics shall refer to IEC 60384-14:2005

项目 Item	特性要求 Characteristic requirement		测试方法及条件 Test method&Condition
气候类别 Climatic Category	40/110/56		
阻燃等级 Passive Flammability Class	B		
工作温度 Operating Temperature	-40℃ ~ +110℃		
容量范围 Capacitance Range	0.0022μF ~ 2.2μF		
容量偏差 Capacitance Tolerance	±10%(K),±20%(M)		1KHz ,1.0Vrms ,25℃
额定电压 Rated Voltage	250VAC/275VAC/300VAC/305VAC/310VAC		
损耗角正切Dissipation Factor	1KHz<0.10%		1KHz ,1.0Vrms ,25℃
绝缘阻值 Insulation Resistance	C_R≤0.33μF	C_R>0.33μF	U_R > 100V,100VDC,
	IR≥15000MΩ	IR≥5000s	60S,20℃
端子间电压 Withstand voltage Between Terminals	应无永久性击穿或飞弧 No permanent breakdown or flashover		4.3U_R(d.c) 60s 25℃ Cut off Current 10mA ,
端子与壳体间耐压 Withstand voltage Between Terminals and Case	应无永久性击穿或飞弧 No permanent breakdown or flashover		2U_R+1500V(a.c) 60s 25℃ ≥2000V(a.c) 25℃

最大脉冲上升时间 MAX. Pulse rise time (dv/dt)	Lead spacing					
	7.5mm	10mm	15mm	22.5mm	27.5mm	37.5mm
	600V/μs	500V/μs	400V/μs	200V/μs	150V/μs	100V/μs

注：额定电压定义：在工作温度范围内，电容持续运行的可承受电压。请不要将电容置于超过额定温度环境中长期工作，会降低使用寿命或发生电击危险。

Note:Rated voltage is defined the voltage which shall be capable of appling to capacitors continuously in the operating temperature range.Please do not place the capacitors in more than the rated operating temperature environment in the long-term work. It can reduces the capacitor's life or cause an electric

7. 印字
Marking

⑴产品商标 logo

⑵静电容量 Capacitance：（823K ， 0.082μF ）

⑶允许误差 Capacitance Tolerance：(K)±10%的误差值

⑷额定电压 Rated Voltage：250、275、300、305、310VAC

⑸产品类别 Product Class：X2

⑹产品型号 Product type： MPX

⑺气候类别 Climatic Category： 40/110/56

⑻阻燃等级 Passive Flammability Class：B

⑼中国安规认证标志 China approvals mark：

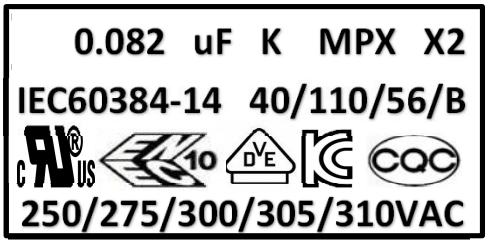
⑽德国安规认证标志 Germany approvals mark

⑾欧盟安规认证标志 ENEC approvals mark：

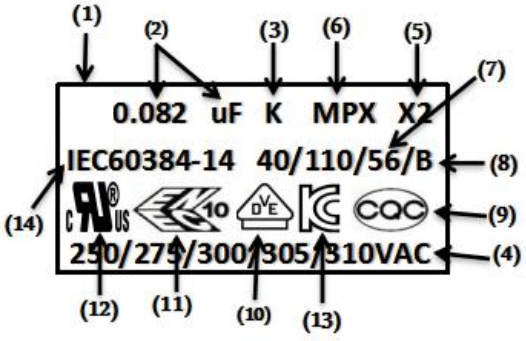
⑿美国安规认证标志 American approvals mark：

⒀韩国安规认证标志 Korea approvals mark：

⒁产品认证标准 Approval standard：IEC60384-14:



例



8. 认证
Approvals

序号 NO	国家 COUNTRY		认证标准 Approval standard		证书编号 File No.	额定电压 RATED VOLTAGE
1	中国	CQC	CQC	IEC60384-14	CQC16001151103	250VAC 275VAC 300VAC 305VAC 310VAC
2	德国	VDE	VDE	IEC60384-14	40044985	
3	欧盟	ENEC	ENEC	IEC60384-14	40044985	
4	美国/加拿大	c UL us	UL	IEC60384-14	E356696	
5	韩国	KC	KTL	KC60384-14	SU03096-17001	
					SU03096-17002	
					SU03096-17003	
					SU03096-17004	

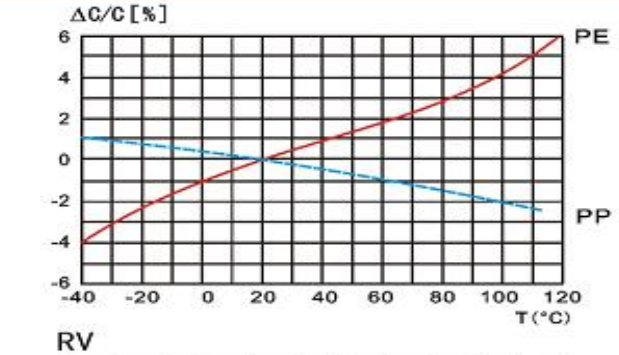
9. 温度特性

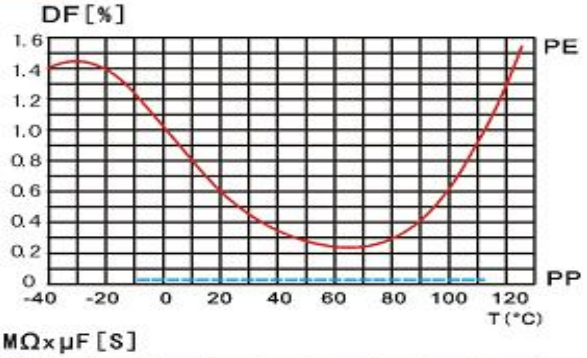
TEMPERATURE CHARACTERISTICS

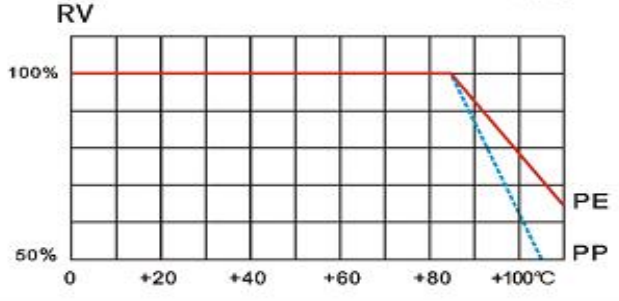
CHARACTERISTICS

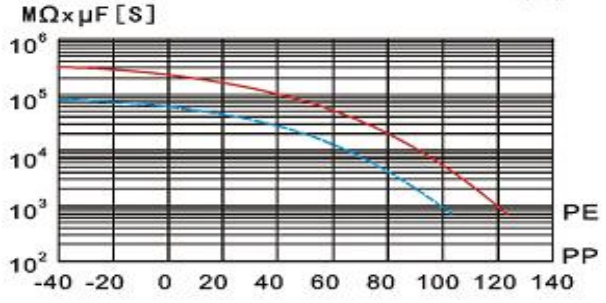
TYPICAL GRAPHS

TEMPERATURE CHARACTERISTICS

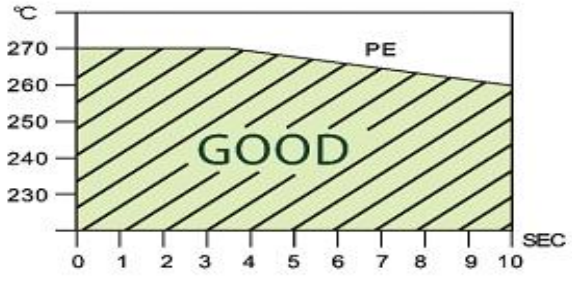


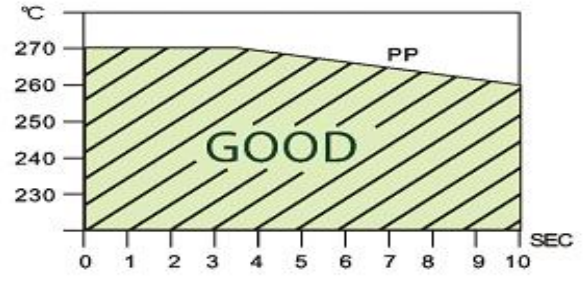




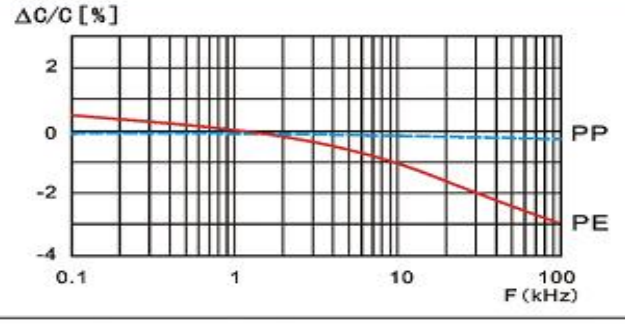


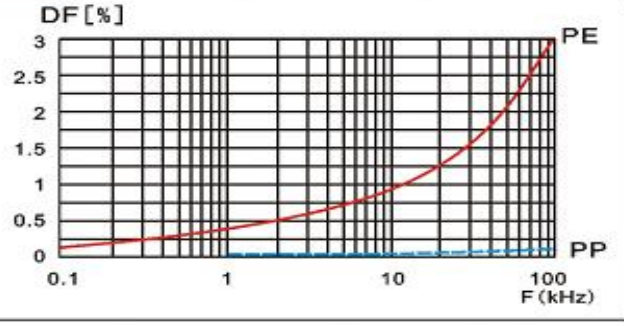
SOLDERING TEMPERATURE VS.TIME





FREQUENCY CHARACTERISTICS





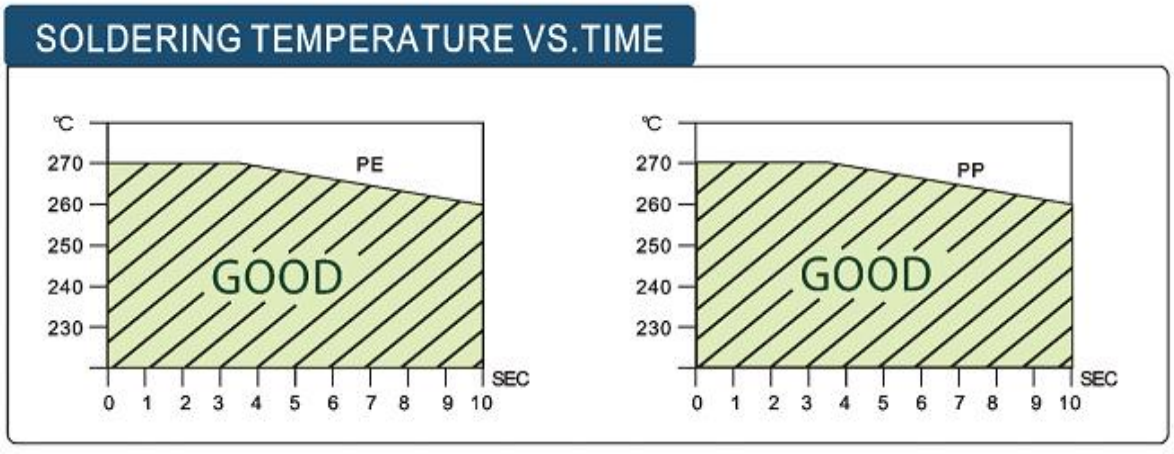
10. 使用指导
Guide in useage

10. 1 焊锡
Soldering

当焊接电容器时，焊锡热会通过引线端子和封装层传递到电容素子，因此必须注意高温和长时间焊接引起的电容电气特性衰减或损坏。请确认焊锡在以下温度范围内。

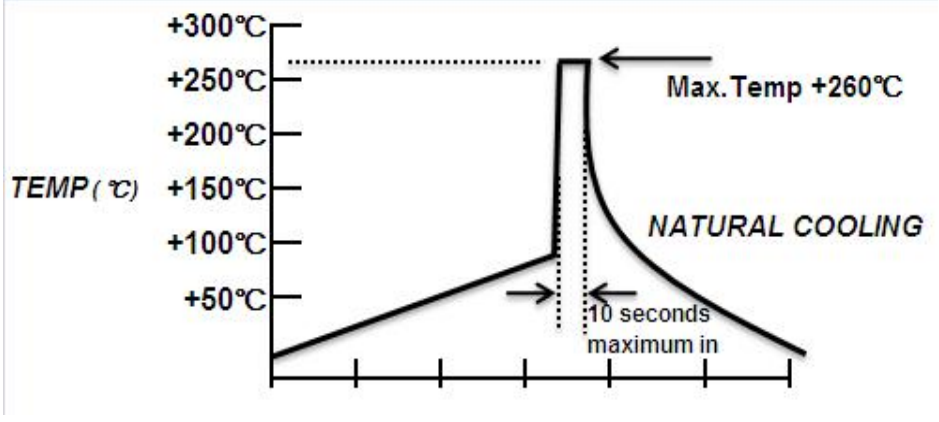
When soldering a capacitor,heat in soldering is conducted to the element of the capacitor from wire lead and an enclosure,and hence it should be noted that soldering under high temperature and long period may cause deterioration of characteristic or breakdown of capacitors.

Be sure to solder within the following temperature condition range.



10. 2波峰焊
FLOW / WAVE SOLDERING

PRODUCTS: FILM CAPACITORS (Application of Through-Hole)



10. 3烙铁焊接
soldering iron

当使用烙铁焊接时，烙铁尖端温度不得超过350℃，焊接时间不超过5秒

When using soldering iron,iron tip temperature less than 350℃,Soldering time(sec.)within 5 seconds.

11. 环保要求
Enviroment requirement

11.1 符合RoHS要求 Compliance with the requirement of RoHS.
11.2 符合REACH要求 Compliance with the requirement of REACH.
11.3 符合无卤（如要求） Without Halogen(as required).

12. 参考标准
Reference standards

GB/T2693-2001（IDT IEC 60384-1-1999） 电子设备用固定电容器 第1部分 总规范
GB/T6346.14-2015 电子设备用固定电容器 第14部分 分规范 抑制电源电磁干扰用固定电容器
IEC-60384-14-2005 电子设备用固定电容器 第14部分 分规范 抑制电磁干扰和连接电源用固定电容器
GB/T 2828.1-2012 计数抽样检验程序 第1部分：按接收质量限(AQL)检索的逐批检验抽样计划

GB/T2693-2001（IDT IEC 60384-1-1999） Fixed capacitors for use in electronic equipment –Part 1: Generic specification
IEC 60384-14:2005 Fixed capacitors for use in electronic equipment – Part 14: Sectional specification:
GB/T6346.14-2015 Fixed capacitors for use in electronic equipment—Part 14:Sectional specification—Fixed capacitors for electromagnetic interference suppression and connection to the
GB/T 2828.1-2012 Sampling procedures for inspection by attributes—Part 1:Sampling schemes indexed by acceptance quality limit(AQL) for lot-by-lot inspection
(ISO 2859-1:1999)IDT

13. 包装
Packing

塑料袋最小包装，数量100、200、300、500、1000PCS
Plastic bag is the minimum packing.the quantity are100、200、300、500、1000PCS.
袋内放置产品合格环保标识标签，包括料号，规格，数量，LOT批号，生产日期等
The label of the RoHS include the product name、specification、quantity、lot No、manufacture date etc.

N袋小包装装一内箱
One inner box have N PCS bags
内箱尺寸为（长×宽×高）=23×30×30cm
Inner box size （L×W×H）=23×30×30cm
有环保标识
Marking for RoHS AND SVHC

两内箱装一外箱
One outer box have two Inner boxes
外箱尺寸为（长×宽×高）=48×32.2×33cm
Outer box size （L×W×H）=48×32.2×33cm
有环保标识
Marking for RoHS AND SVHC

14. 存储条件
Storage conditions

14.1 请注意，长时间产品暴露在空气中会导致引线氧化，焊接性能衰减。
It should be noted that the solderability of the terminals may be deteriorted when stored barely in an atmosphere for a long preriods

14.2 不能放置在高温高湿环境中，请遵循以下存储条件（原包装下保存）
It shouldn't be located in particularly high temperature and high humidity, it must submit to the following conditions(keeping in the original package)

温度 Temperature: 35℃ MAX
相对湿度 Relative humidity：60% MAX

14.3 存储时间：最长12个月（以包装袋上标注的生产日期为准）
Storage period:Losse:12 monthes max
(from the manufacturing date marked on the label in package bag)

15. 可靠性实验
Reliability test

15.1 测试条件：除非另有规定，所有试验和测量均应在GB2421−81第4.3条（IEC68▣1第5.3条）中规定的试验用标准大气条件下进行,条件如下：
Test condition:Unless otherwise specified ,all tests and measurements shall be made under standard atmospheric conditions for testing as given in GB2421-81 NO.4.3(IEC68-1 NO.5.3),AS follows

温　　度 Temperature：　15℃－35℃
相对湿度 Relative humidity：25%— 75%
气　　压 Air pressure：　86—106Kpa (860—1060mbra)

15.2如对测试结果有任何疑问，则按一下限制测试：
If there may be any doubt on the results, measurements shall be made within the following limits.
环境温度 Ambient temperature:25±2℃
环境湿度 Relative humidity:50～70%

15.3 电性参数参考
Electric characteristics shall refer to
IEC 60384-1:2016 ;
IEC 60384-14:2005;
IEC 60068-2-1;
IEC 60068-2-2;
IEC 60068-2-6;
IEC 60068-2-20;
IEC 60068-2-21;
IEC 60068-2-27;
IEC 60060-1;
IEC 600695-11-5;

15.4 电性参数
Electric characteristics

	项目 Item	特性要求 Characteristic requirement		测试方法及条件 Test method&Condition
	容量范围 Capacitance Range	0.0022μF ~ 2.2μF		IEC60384-14 C4.2.2 IEC60384-1 C4.7
	容量偏差 Capacitance Tolerance	±10%(K) ±20%(M)		1KHz ,1.0Vrms ,25℃
	额定电压 Rated Voltage	250VAC/275VAC/300VAC/305VAC/310VAC		
	损耗角正切 Dissipation Factor	1KHz<0.10%		1KHz ,1.0Vrms ,25℃
	绝缘阻值 Insulation Resistance	C_R≤0.33μF IR≥15000MΩ	C_R>0.33μF IR≥5000s	U_R > 100VDC,60s,25℃
	端子间电压 Withstand voltage Between Terminals	应无永久性击穿或飞弧 No permanent breakdown or flashover		4.3U_R(d.c) 60s Cut off Current 10mA , ARC=OFF, Voltage raising time 5～10s,
	端子与壳体间耐压 Withstand voltage Between Terminals and Case	应无永久性击穿或飞弧 No permanent breakdown or flashover		2U_R+1500V(a.c) 60s ≥2000V(a.c)

最大脉冲上升时间 MAX. Pulse rise time (dv/dt)	Lead spacing					
	7.5mm	10mm	15mm	22.5mm	27.5mm	37.5mm
	600V/μs	500V/μs	400V/μs	200V/μs	150V/μs	100V/μs

15.5 寿命实验
Life Test

NO.	项目 Item		特性要求 Characteristic requirement	测试方法及条件 Test method&Condition		
1	端子强度 Terminal Strength	拉伸强度 Pull Strength	无可见机械损伤 There shall be no visible mechanical damage	线径㎜ wire diameter	荷重 Load	时间 Time
				≤0.5	5N	10S
				0.5<d≤0.8	10N	10S
				0.8<d≤1.25	20N	10S
				IEC60384-14 C4.3 IEC60384-1 C4.13		
				IEC60068-2-21 Test Ua1		
		弯曲强度 Bending Strength	无可见机械损伤 There shall be no visible mechanical damage	线径㎜ wire diameter	荷重 Load	次数 Times
				≤0.5	5N	90℃×4
				0.5<d≤0.8	5N	90℃×4
				0.8<d≤1.25	5N	90℃×4
				IEC60384-14 C4.3 IEC60384-1 C4.13 IEC60068-2-21 Test Ua1		

15.5 寿命实验 Life Test

NO.	项目 Item		特性要求 Characteristic requirement	测试方法及条件 Test method&Condition
2	可焊性 Solderability		端子引线周围至少95%的面积均匀附锡，且本体无破裂等损坏现象 锡料成分Sn 97.5%+ Ag 2%+Cu 0.5% At least 95% of the Circumference of the Lead wire.Around load surface dipped into with new soler, the body be no visible damage.	焊锡温度： 235±5℃ Solder temp 浸渍时间： 2.0±0.5s Immersion time IEC60384-14 C4.5 IEC60384-1 C4.15 IEC60068-2-20 Test Ta
3	耐焊接热 Resistance to Soldering heat	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	焊锡温度： 260±5℃ Solder temp 浸渍时间： 10±1s Immersion time 恢复时间1-2小时 Then recovery at ordinary condition 1~2hours IEC60384-14 C4.4 IEC60384-1 C4.14 IEC60068-2-20 Test Ta
		容量变化 Capacitance Variation	△ C/C≤5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3U_R（d.c）60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	
4	耐久性 Endurance	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	温度Temp： 110±3℃ 持续时间: Duration： 1000+48H 施加电压voltage： 1.25 U_R(a.c.)50Hz 每小时施加1000vac 0.1s once every hour increase to 1000vac for 0.1s 恢复时间至少16小时 Then recovery at ordinary condition at least 16 hours IEC60384-14 C4.14 IEC60384-1 C4.23 IEC60068-2-2
		容量变化 Capacitance Variation	△ C/C≤10%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3 U_R（d.c）60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	
5	稳态湿热 Damp heat, steady state	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	温度Temp： 40±2℃ 湿度： 90-95%RH Humidity 持续时间： 56 day Duration 电容不施加电压 恢复时间1-2小时 Then recovery at ordinary condition 1-2 IEC60384-14 C4.12 IEC60384-1 C4.22 IEC60068-2-78 Test Cab
		容量变化 Capacitance Variation	△ C/C≤5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3U_R（d.c）60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	

15.5 寿命实验 Life Test

NO.	项目 Item		特性要求 Characteristic requirement	测试方法及条件 Test method&Condition
6	干热 Dry heat	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	温度Temp :105±2℃ 持续时间： 16H Duration 恢复时间不低于4小时 Then recovery at ordinary condition at least 4 hours IEC60384-14 C4.11.2 IEC60384-1 C4.21.3 IEC60068-2-2, test Bb
		容量变化 Capacitance Variation	△ C/C≤5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3 U_R （d.c） 60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	
7	寒冷 Cold	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	温度Temp：-40±2℃ 持续时间： 4H Duration 恢复时间不低于4小时 Then recovery at ordinary condition at least 4 hours IEC60384-14 C4.11.4 IEC60384-1 C4.21.5 IEC60068-2-1, test Ab
		容量变化 Capacitance Variation	△ C/C≤5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3U_R （d.c） 60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	
8	浪涌 Surge	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	When C_R ≤ 1.0 μF UP = 2.5kv When C_R > 1.0 μF UP =2.5kv/√C time:10s Cycle times:24次 前三次脉冲没有发生自愈性击穿，则可停止，为合格 IEC60384-14 C4.13 IEC60060-1
		容量变化 Capacitance Variation	△ C/C≤5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3U_R （d.c） 60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	

15.5 寿命实验 Life Test

NO.	项目 Item		特性要求 Characteristic requirement	测试方法及条件 Test method&Condition
9	充放电 Charge and discharge	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	Test voltage: $1.414U_R$ (d.c.) time:1Cycle/s Cycle times:10000 dv/dt:100 V/μs. resistor: $(220*10^{-6}/ C_R)\Omega$ IEC60384-14 C4.15 IEC60384-1 C4.27
		容量变化 Capacitance Variation	△ C/C≤±5%	
		损耗 Dissipation Factor	△ tgδ <0.0080 C_R≤1.0μF △ tgδ <0.0050 C_R>1.0μF at 1KHz	
		耐电压 Withstand Voltage	4.3 U_R （d.c） 60s耐电压后无击穿或飞弧 No permanent breakdown or flashover	
		绝缘电阻 Insulation Resistance	△ R/R≤50%	
10	振动 Vibration	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	上下左右前后三个方向各2H，频率10-55Hz 振幅0.75mm或98m/S^2 3 directions at 2 hours each 10-55Hz at 0.75mm or 98m/s^2 IEC60384-14 C4.7 IEC60384-1 C4.17 IEC60068-2-6, test Fc,
11	碰撞或冲击 Bump	外观 Appearance	无可见损伤,标志清晰 No visible damage，The marking shall be legible。	次数 number of bumps: 1000 or 4000 加速度 Acceleration: 400 m/s^2 Pulse duration: 6 ms IEC60384-14 C4.8 IEC60384-1 C4.18 IEC60068-2-27, test Eb,
12	阻燃试验 Passive flammability test		燃焰等级：B Category of flammability 燃焰时间：10S Flame exposure time 最大燃烧时间：10s Maximum burning time	UL94-V0 IEC60384-14 C4.17 IEC60384-1 C4.38 IEC60695-11-5.
13	自燃试验 Active flammability test		缠绕在电容上的薄纱布应不会燃烧，电测量不要求。 The cheesecloth around the capacitor shall not burn with a flame. No electrical measurementsare required.	施加电压为2.5KV的20个脉冲电压，每个电压5秒 20 surge pulses at 2.5 KV(pulse every 5s) IEC60384-14 C4.18