BERYL®

承认书

APPROVAL SHEET

铝电解电容器(Aluminium Electrolytic Capacitors)

No:20150126R

客户
CUSTOMER 深圳市金鹏辉科技有限公司

商标
BRAND: BERYL

系列
SERIES: RC

日期
DATE：2015-1-26

形 状: 导针型
TYPE: RADIAL

描述
DESCRIPTION：

330μF/50V Φ10*16L

供应商 VENDOR			客户 CUSTOMER		
Approver 批 准	Auditor 审 核	Designer 制 作	Approver 批 准	Auditor 审 核	Tester 测试者
陈镇权	李琳	黄汝梅			

承认后，请签回一份，在下正式订单前如未签回承认书，视同默认本公司的相关标准及技术指标。
ter approved, please sign back 1 Approval Sheet before order. If not, we will treat it as tacitly acknowledged and accepted our relative standard and technical index.

肇庆绿宝石电子科技股份有限公司

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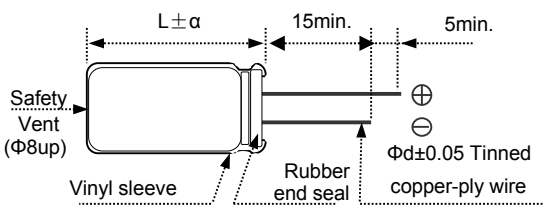
RC Series

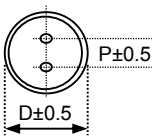
- Low impedance type
- For switching power supply
- RoHS Compliant

◆ 规格表 Specifications

项目Items	特性参数Characteristics		
使用温度范围 Category Temperature Range	-55 ~ +105℃(50V)		
额定工作电压范围 Rated Voltage Range	50V		
静电容量允许偏差 Capacitance Tolerance	±20%(M) (at 20℃,120Hz)		
漏电流 Leakage Current	50V		
	I≤0.03CV or 4μA,Which is greater application of rated Voltage after 1 minute。施加额定工作电压1分钟后读数，二者取大值。 I≤0.01CV or 3μA,Which is greater application of rated Voltage after 2 minutes. 施加额定工作电压2分钟后读数，二者取大值。		
	Note: I=Max.leakage current (uA), C=Nominal capacitance(uF), V=Rated voltage(V) (at 20℃)		
损耗角正切值tanδ Dissipation Factor	Rated voltage(V)	50	
	tanδ(Max.)	0.10	
	标称容量超过1000uF,则每增加1000uF,损耗角正切值增加0.02. When nominal capacitance exceeds 1000μF,add 0.02 to the value above for each 1000μF increase. (at 20℃,120Hz)		
低温特性 Low Temperature Characteristics (Max.Impedance Ratio)	电容器在120Hz下的阻抗比值，不应超过下表所列出的值		
	Rated voltage(V)	50	
	Z(-25℃)/Z(+20℃)	2	
	Z(-55℃)/Z(+20℃)	3	(at 120Hz)
耐久性 Endurance	105℃施加额定工作电压和最大允许纹波电流经下表规定时间，恢复到20℃后，产品性能应满足以下要求 The following specifications shall be satisfied when the capacitors are restored at 20℃ after subjected to DC voltage with the rated ripple current is applied for the specified period of time at 105℃.		
	Time for 50V	Φ10 : 3000 hours	
	Capacitance change	≦±20% of the initial value	
	D.F.(tanδ)	≦200% of the specified value	
	Leakage current	≦The specified value	
高温储存特性 Shelf Life	105℃放置1000小时，恢复到20℃后，产品性能应满足以下要求 The following specifications shall be satisfied when the capacitors are restored at 20℃ after exposing them for 1000 hours at 105℃ without voltage applied.		
	Rated voltage	50V	
	capacitance change	≦±20% of the initial value	
	D.F.(tanδ)	≦200% of the specified value	
	Leakage current	≦The specified value	

◆ 外形图Dimensions (mm)





ΦD	10
P	5.0
Φd	0.6

α	(L<20)1.5
	(L≧20)2.0

◆ 纹波电流频率补正系数 Rated Ripple Current Coefficient

Rated Voltage(V)	Frequency(Hz) / Case code	120	1K	10K	100K
50	Φ10	0.60	0.84	0.96	1.00

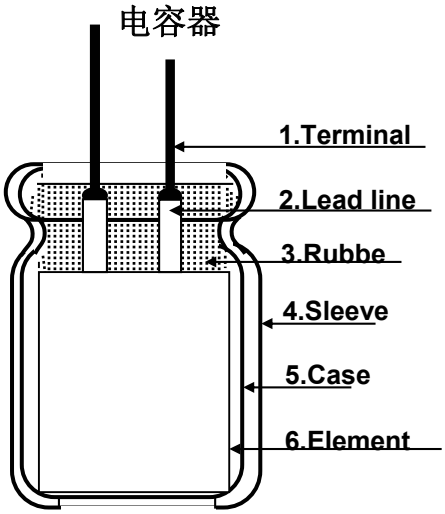
表中Max和Min均为样品实测数据.Max、Min value in the list is measured value.

BERYL		金鹏辉	主要技术参数												
部品号码	部品名	额定条件下 工作寿命	CX容量 (uF) at 1KHz 25℃			DF损失(%) at 120Hz 25℃			最大允许纹波电流(mArms) 温度105℃ 测试频率100KHz	ESR(Ω)100KHz 25℃			LC漏电(uA)1分钟测试		
			264~396			<10				<0.084			<495		
			Max	Min	$\overline{X}$	Max	Min	$\overline{X}$		Max	Min	$\overline{X}$	Max	Min	$\overline{X}$
RC050M331LO10*16	330uF/50V Φ10*16L 墨绿金字	3000H	308.6	300.0	304.3	3.72	3.40	3.56	1055.00	0.0540	0.0530	0.0535	50.0	45.0	47.5

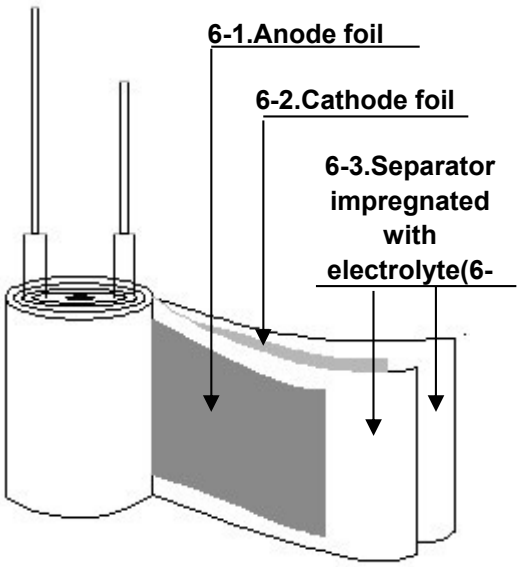
PLANNED BY	CHECKED BY	APPROVED BY		SHEET
黄汝梅	李琳	陈镇权	BERYL	共6页，第3页

Structure Drawing of Aluminum Electrolytic Capacitors
铝电解电容器结构图

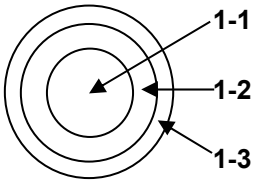
Capacitor
电容器



Stretch Out View of Element
素子展开图



Cross Section of Terminal
CP 线横向剖面图



1-1.Fe
铁芯

1-2. Copper plate (≥10um)
镀铜层

1-3.Tin Plate(≥8um)
镀锡层

Item	Component 组成材料	Materials 材质	Vendor 供应商
1	Terminal CP线	Tinned copper-ply wire 镀铜镀锡铁线	Japan-Funded Enterprises
2	Lead line 引出线	Aluminum, 99.95% or 99.97% 纯度为99.95%或99.97%的金属铝片	Nan Ming(Quan Yong)
3	Rubber 胶盖	IIR rubber IIR 橡胶	Lian Hua Xin
4	Sleeve 胶管	PET PET	Yun Lin
5	Case 铝壳	Aluminum, 99.8% 纯度为99.8%的金属铝	An Qi Li
6-1	Anode Foil 阳极箔	Formed aluminum, 99.99% or 99.98% 纯度99.99%或99.98%的化成铝箔	China-Japan Joint Venture
6-2	Cathode Foil 阴极箔	Etched aluminum, 99.7% or 99.4% 纯度99.7%或99.4%的腐蚀铝箔	ELE-CON
6-3	Separator 电解纸	fiber paper 纤维纸	KAN、NKK
6-4	Electrolyte 电解液	Ethylene glycol, ammonium salt,etc. 乙二醇、铵盐等	BERYL

NOTICE ON MANUFACTURING PROCESS　　对于构成部品的材料，处理的注意事项

●Don't change written contents and append it.　　●记载内容不变更与添加

1.此部品不使用含有RoHS的指定物质.

2.对于RoHS物质使用的有无在承认书上要明确规定.

3.为部品易区分处理．对塑料材料要标识材料记
所谓标识记号详细请参照RoHS[塑料制部品的材料标识规定」
但，标识困难时除外.

「困难例」

. 无记入标识记号的场所.
. 因要记入标识可能会造成机能损坏.
. 因生产方法标识困难。

4.成型用树脂．油墨，涂料，覆盖电线要从绿色环保伙伴认定厂商购买.

1.This part should not contain any substances which are specified in RoHS

2.Clarify by delivery specifications about the existence of use of the substance which are specified in RoHS

3.In order to make sorting of plastic waste easy, material symbols is marked on the plastic part
For details on marking symbols, refer to RoHSMarking of plastic parts and packaging material.

Marking may be cmitted in the following cases:

. Not enough space to apply the marking
. Marking would interfere with performance or funcional
. Marking technically not feasible due to the specific production method

4.Purchase ink, paint,wire rods. And molding resins only from the business partners that approves as RoHS

5.Marking

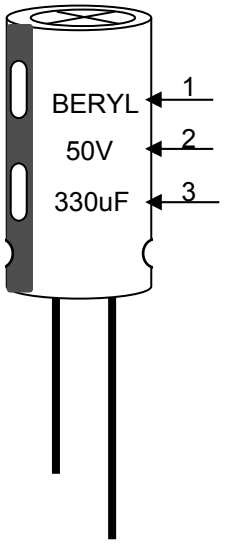
The following items shall be marked indelibly and legibly on specimen or each unit pack.

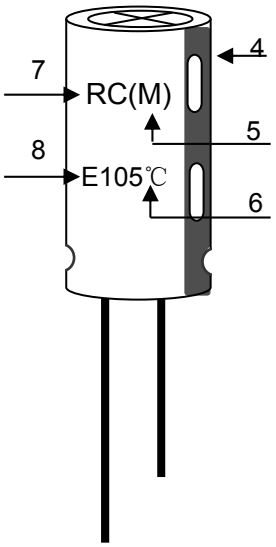
5.标示

每个部品的表面或最小包装单位依下记事项不易消失的方法来标示.

1.Manufacturer's name(abbreviated manufacturer's name permitted) or trademark.
2.Work voitage
3.Capacitance
4.Polarity of the terminals
5.Capacitance Tolerance
6.Work temperature
7.Series
8.Sleeve

1.制造者名(料号）或商标
2.额定电压
3.静电容量
4.极性
5.静电容量允许误差
6.最高使用温度
7.系列
8.胶管材质：PET





注：1.本承认书中所有数据如有异议，以中文为准。
2.在使用电解电容器时，请参考承认书内的使用标准，由于客户使用超出承认书相关参数和范围，如额定电压、额定纹波电流、温度等，不在我司质量保证范围内。
3.由于电路设计不当或缺陷造成的电解电容器损坏，不在我司质量保证范围内。