

BERYL®

承认书

APPROVAL SHEET

铝电解电容器(Aluminium Electrolytic Capacitors)

No:20150113D

客户

深圳市金鹏辉科技有限公司

CUSTOMER

商标

BRAND: BERYL

日期

DATE: 2015-1-13

描述

DESCRIPTION:

470 μ F/450V Φ 35*50L

系列

SERIES: KM

形状: 基板自立型

TYPE: Snap-in

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

Zhao Qing Beryl Electronic Technology Co., Ltd.

中国广东省肇庆市端州八路 526020

NO.8 DUANZHOU ROAD ,ZHAOQING CITY .GUANGDONG -526020.CHINA

TEL: (0758) 2862871 FAX: (0758) 2862870

E-mail:master@zq-beryl.com http://www.zq-beryl.com

KM Series

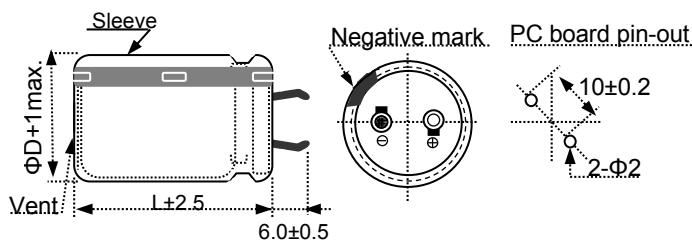
- Snap-in
- Endurance with ripple current: 105°C 2000 hours
- RoHS Compliant

◆ 规格表 Specifications

项目 Items	参数特性 Characteristics	
使用温度范围 Category Temperature Range	-25 ~ +105°C (450V)	
额定工作电压范围 Rated Voltage Range	450V	
电容量允许偏差 Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
漏电流 Leakage Current	I ≤ 0.02CV (0.03CV for L=20mm) or 3mA, which is smaller application of rated Voltage after 5 minutes. 5分钟读数, 二者取小值. Note: I=Max.leakage current (uA), C=Nominal capacitance(uF), V=Rated voltage(V) (at 20°C)	
损耗角正切值 tan δ Dissipation Factor	Rated voltage(V)	450
	tan δ (Max.)	0.20
	(at 20°C, 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)	450
	Z(-25°C)/Z(+20°C)	8
	Z(-40°C)/Z(+20°C)	-
	(at 120Hz)	
耐久性 Endurance	105°C施加额定工作电压和最大允许纹波电流2000小时, 恢复到20°C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°C after subjected to DC voltage with the rated ripple current is applied for 2000 hours at 105°C.	
	Capacitance change	≤ ±20% of the initial value
	D.F.(tan δ)	≤ 200% of the specified value
	Leakage current	≤ The specified value
高温储存特性 Shelf Life	105°C放置1000小时, 恢复到20°C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°C after exposing them for 1000 hours at 105°C without voltage applied.	
	Capacitance change	≤ ±20% of the initial value
	D.F.(tan δ)	≤ 150% of the specified value
	Leakage current	≤ The specified value

◆ 外形图 Dimensions (mm)

- Standard Terminal Type : S (Φ35)



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)at120Hz 25℃			DF损失at120Hz 25℃			最大允许纹波电 流(Arms)温度 105℃ 测试频 率120Hz	LC漏电(uA)5分钟测试		
			376~564			<20				<3000		
KM450M471SI35*50	470uF/450V Φ35*50L	2000H	Max	Min	\bar{X}	Max	Min	\bar{X}	1.72	Max	Min	\bar{X}
	黑色		465.5	428.9	447.2	7.57	7.03	7.30		150.0	120.0	135.0
PLANNED BY	CHECKED BY	APPROVED BY	BERYL									SHEET
黄汝梅	李琳	陈镇权	BERYL									共6页, 第3页

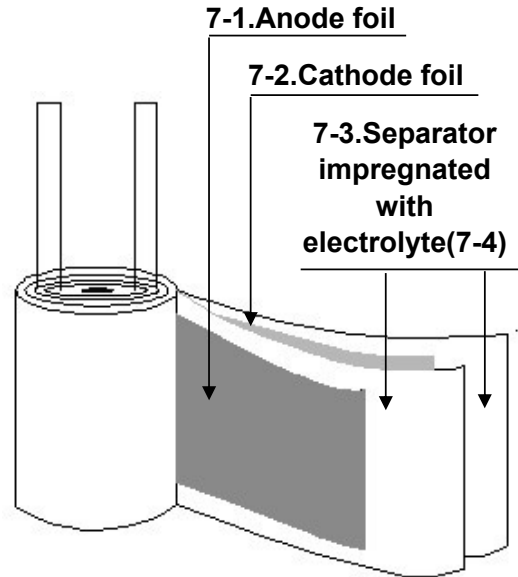
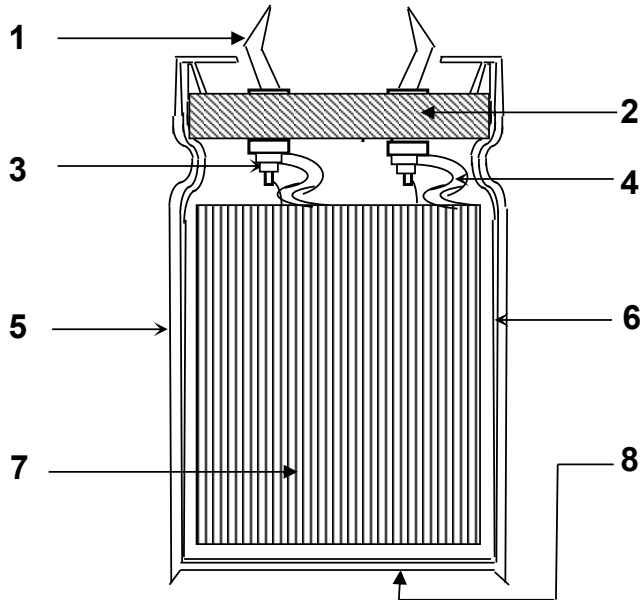
Structure Drawing of Snap-in Type Capacitors (for reference)

牛角型产品结构图（仅供参考）

Cross Section of The Capacitor Stretch Out View of Element

产品剖面图

素子展开图



Item	Component	Materials
	构件名称	材质
1	Terminal 端子	Copper, tin 铜, 锡
2	Seal 盖板	Bakelite, phenolic, etc. 电木层, 酚醛树脂层等
3	Washer 铝华司	Aluminum, 99.9% 纯度为99.9%的铝
4	Tab 导箔条	Aluminum, 99.9% 纯度为99.9%的铝
5	Sleeve 胶管	PET
		PET
6	Case 铝壳	Aluminum, 99.8% 纯度为99.8%的铝
7	Element 素子	Aluminum foils, separator, electrolyte, etc. 铝箔, 电解纸, 电解液等
7-1	Anode foil 阳极箔	Formed aluminum, 99.99% or 99.98% 纯度99.99%或99.98%的化成铝箔
7-2	Cathode foil 阴极箔	Etched aluminum, 99.7% or 99.4% 纯度99.7%或99.4%的腐蚀铝箔
7-3	Separator 电解纸	fiber paper 纤维纸
7-4	Electrolyte 电解液	Ethylene glycol, Ammonium salt, etc. 乙二醇、铵盐等
8	Gasket 垫片	PVC/PP/PET 聚氯乙烯或聚丙烯或乙烯丙烯三元共聚物

TITLE/DESCRIPTION

ALUMINUM ELECTROLYTIC CAPACITOR

铝电解电容器

BERYL

SHEET

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● 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.Clarity 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 omitted in the following cases:

- . Not enough space to apply the marking
- . Marking would interfere with performance or functional
- . 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

TITLE/DESCRIPTION ALUMINUM ELECTROLYTIC CAPACITOR	BERYL	SHEET
----- 铝电解电容器		共6页, 第5页

5. Marking

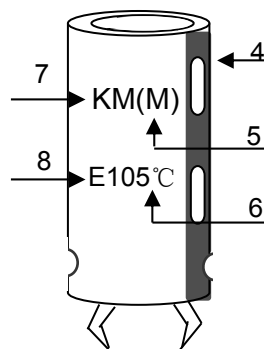
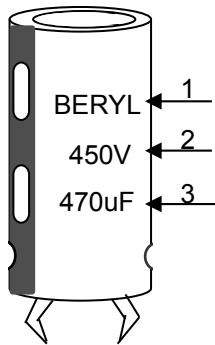
The following items shall be marked indelibly and legibly on specimen or each unit pack.

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

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. 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

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。

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