



Screw Terminal Al-capacitors 铝电解电容器

FE50400682M5C290 400V 6800 μ F 77 X 155 85 $^{\circ}$ C 5000h

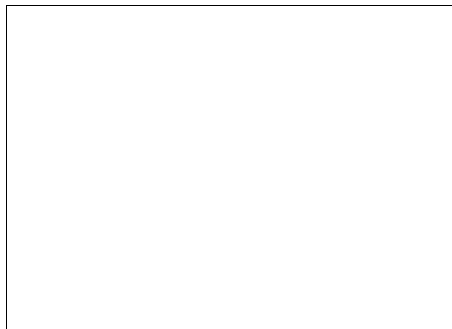
Feature: 标准系列Standard Series
符合ROHS要求ROHS compatible
激光焊接连接端laser welding for electrical connetion
小体积 Compact Size

Aluminum Electrolytic Capacitors Specification
Capacitors with screw terminals

螺钉铝电解电容器规格书

Customer : 汇川技术

受领印栏



Series/Type: FE50
Ordering code: FE50400682M5C290
Date: April 17, 2013
Version: 1
拟定created: 洪海燕 审核checked : 王燕 批准 approval:

注：对此规格书确认后，在确认后签名，返传一份与敝公司



1. 适用范围 Adapt Range

本产品规格书适用于深圳市凯琦佳科技有限公司电解电容器产品系列:

FE50

The product specification is adapted to series Aluminum

FE50

Electrolytic Capacitors of Catchy and Excellent Technical Co., Ltd

2. 部品编号 Part Number System

FE50	400	682	M	5	C	2	90
↓	↓	↓	↓	↓	↓	↓	↓
系列	标称电压	额定容量	容量组别	M5	直径	端子	高度及其它要求
Series	Rated V	Rated C (μ F)	C Tolerance	Screw	D code	Terminal Code	length and others
	400V	6800			77		155

3. 电气特性 Electrical characteristics (表1)

额定电压 Rated WV (V. DC)	浪涌电压 Surge (V. DC)	额定容量 Rated C (μ F)	容量偏差 C Tol. (%)	损耗角正切 TGD (MAX)	ESR典型值 Typical ESR (mΩ)	漏电流 IL (mA , MAX, 5min)	最大纹波电流 Max ripple current (A)	其它 others
400	450	6800	-20~+20	0.20	14.1	5	21	
at 120Hz 20°C							85°C 120Hz	

气候类别 Environmental Category : 40/085/56

4. 性能特性 Specification

No.	项目 Item	特性 Characteristics
1	外观检查 Visual examination, marking (Non-Destructive)	外观: 无任何异常 Appearance: no remarkable abnormality
2	外形尺寸 Dimensions (Non-Destructive)	见外形图 See to dimensions
3	漏电流 Leakage current (Non-Destructive)	见表1 See to table 1
4	容量 Capacitance (Non-Destructive)	见表1 See to table 1
5	损耗角正切 Tangent of the loss angle (Non-Destructive)	见表1 See to table 1
6	端子强度 Robustness of terminations	扭距Torque: 3.0N.m(Max) 拉力Tensile: 20N



7	振动 Vibration	频率范围Frequency range: 10—55Hz 振幅: 0.75mm Total Amplitude: 0.75mm 条件: X.Y.Z 方向各2小时 Direction and duration of vibration: 3 orthogonal directions mutually each for 2 hours Total 6 hours 静电容量测试时无接触不良, 断线及短路, 端子无机械损伤 Capacitance: During the test, measured value to be stabilized (when measured several times within 30 min before completion of test)Appearance: No remarkable abnormality 静电容量变化: 初始值的-15~+15%以内 Capacitance change: Within -15~+15% of the initial value			
8	稳态湿热 Dump heat	温度: 40±2℃ 湿度: 90-95%Rh 时间: 56天 Test Temperature :40±2℃ Relative Hwmidity:90-95%Rh Test time: 56天 试验后常温放置1-2小时 To expose in the atmospheric condition for 1 to 2 hours after completion of test 漏电流: 不超过规定值 Leakage current: Not more than the specified value 静电容量变化: 初始值的-20~+20%以内 Capacitance change: Within -20~+20%of the initial value 损耗角正切: 不超过规定值 Dissipation Factor: Not more than the specified value 绝缘电阻 (使用金属箔法): 大于100MΩ Insulation Resistance (Using metal foil): ≥100MΩ			
9	耐久性 Endurance	时间 (Time)	5000h	温度temperature 85℃	电压: 额定电压 (叠加规定纹波电流) 试验后常温放置16h测定 Applied Voltage:maximum value of DC voltage overlapped by an allowable ripple current. The capacitors shall then be removed from the test chamber and stabilized at room temperature for 16 hrs. after。 漏电流: 不超过规定值 Leakage Current:Not more than the specified value 电容量变化: 初始值的-20~+20%以内 Capacitance change:within-20~+20% of the initial value 损耗角正切: 不超过规定值的1.75倍 Dissipation Factor:Not more than 175% of the specified value
10	浪涌 Surge	印加 电压 (VDC)	450	温度temperature 85℃	周期: 6±0.5min 30±5sec充电 A period:6±0.5min(charging for 30±5sec) 充电电阻: 1000Ω 回数: 1000 times Series protective resistance The number of times 漏电流: 不超过规定值 Leakage Current:Not more than the specified value 电容量变化: 初始值的15%以内 Capacitance change:within 15% of the initial value 损耗角正切: 不超过规定值的1.75倍 Dissipation Factor:Not more than 175% of the specified value



11	压力释放 Pressure relief	<p>电容器上印加10A 逆向直流电，防爆阀正常动作，无金属片飞散，起火，爆炸。</p> <p>The capacitor is shall be connected in inverse polarity, and applied DC current at 10A constant, The pressure relief device shall open in such a way as to avoid any danger of fire or explosion of capacitor elements</p>				
12	高温贮存 Storage at upper category temperature	温度 (temperature)	85°C			
		<p>时间(Time): 500h 电压处理: 常温下电容器串联保护电阻(1K), 加额定电压30分钟, 印加后放电, 常温放置16h Condition: Following this period the capacitors shall be removed from the test chamber and be allowed to stabilize at room temperature. Next they shall be connected to a series limiting resistor (1K), with DC. Rated Voltage applied for 30 min. after which the capacitors shall be discharged. 漏电流: 不超过规定值 Leakage Current: Not more than the specified value 电容量变化: 初始值的15%以内 Capacitance change: within 15% of the initial value 损耗角正切: 不超过规定值的1.75倍</p>				
13	绝缘耐压 insulation withstanding voltage	<p>Dissipation Factor: Not more than 175% of the specified value 2000VAC施加于短路的端子和固定卡箍之间, 1分钟不破坏 A voltage of 2000VAC is applied for one minute between the terminals shorted each other and the mounting clamp on insulating sleeve covering the case, there shall not be damaged</p>				

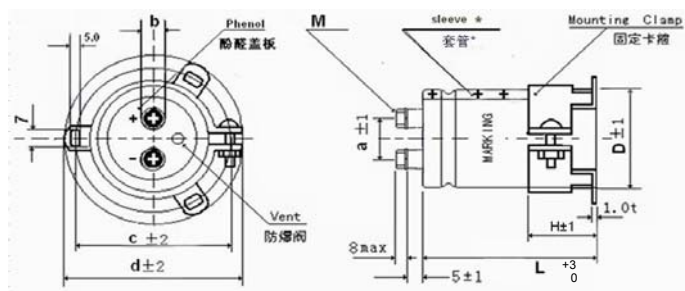
5. 标识 Marking



No.	项目 Item	No.	项目 Item
1	商标 Brand	5	气候类别 Climate category
2	产品系列及料号 Products number	6	日期及产地 Date and place
3	静电容量 Capacitance		
4	额定电压 Rated voltage		

6. 外型图 Dimensions

6-1 三角卡箍类结构尺寸



D: 77
c: 88.9

L: 155
d: 98.4

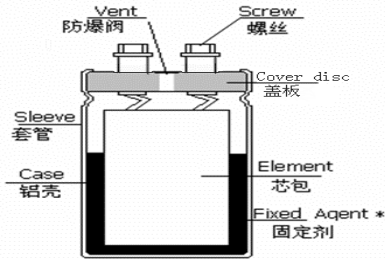
a: 32

b: 10
* 2

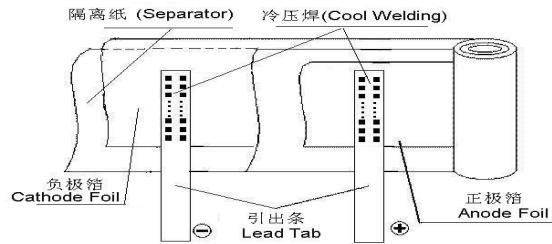
M: M5X12
H: 30

7. 构造图及材料表(Frame drawing and material table)

7-1 构造图(Frame drawing)



7-2 工艺芯包分解图 (Element drawing)



7-3 材料表 (Material table)

No.	构成部件 Parts	材质 Material	厂家 Maker
1	铝壳 Case	铝 Aluminum	浙江龙发 ZHEJIANG LONGFA
2	套管 Sleeve	聚氯乙烯 Polyvinyl Chloride	郡是高分子 (GUNZE KOBUNSHI CORP) 材料: W10BSF UL证号: E104115
3	封口板 End seal board	塑料 Plastics	鑫晨电子、南通托普
4	垫片 Bottom plate	PET	四川东方绝缘材料有限公司 材料: DFD250 UL证号: E199019
5	隔离纸 Separator	电解电容器纸 Electrolytic Capacitors Paper	NKK/SPO/凯恩股份KAN
6	引线条 Lead Tab	铝 Aluminum	吴江飞乐FEILO
7	端子 Terminal	铝 Aluminum	鑫晨电子、南通托普
8	正极箔 Anode Foil	铝 Aluminum	宜都东阳光化成箔厂 HEC
9	负极箔 Cathode Foil	铝 Aluminum	吴江飞乐FEILO
10	电解液 Electrolyte	有机溶剂 Organic Solvent	新宙邦、海斯普林、日本铃木



8. 纹波电流系数 Multiplier for ripple current

8-1 频率系数 Frequency Coefficient

频率 (Hz) Freq.	50/60	120	300	1K	≥10K
系数 Coe.	0.7	1.0	1.1	1.3	1.4

8-2 温度系数 Temperature Coefficient

温度(°C) Tem.	+40	+60	+70	+85
系数 Coe.	1.90	1.67	1.45	1.00

9. 包装 Packaging

9-1 包装数量 Packaging Quantity

电容器尺寸	Φ77X155	12PCS
Capacitor case	Φ77X155	12PCS

9-2 包装箱材质 Material of Packaging Box

瓦楞纸

Corrugated Cardboard

9-3 包装箱尺寸 Dimensions of Packaging Box

尺寸 Dimensions: 395X295X199

10. 生产日期的表示方法 Production date code

YY.MM.SZ

例 EX: 11 09 SZ

2011年9月份 深圳

Production date: produced in 09, 2011 Shenzhen