



杞 弃 总

APPROVAL SHEET

照 纈↵

CUSTOMER↵ _____

骂 丽↵

PARTNAME↵ _____ 諠啗碜啗侦强(E-CAP)

扞 恢↵

SERIES↵ _____ "EF72J*0J+扞恢"

矚 黝↵

SPECIFICATION↵ _____ "矚妆滞畷"

亘 酪类↵

VERSION↵ _____ "SYJ/390223"

裾 趲↵

DATE: _____ "4239023023"

货 兹 MANUFACTURE		照 纈 CUSTOMER	
榭 货 FORMULATE	豐 恒 APPROVAL	觸 陝 CHECK	豐 恒 APPROVAL





滇鲁竜味

REVISION RECORD

VER 豆酪	MINUTE OF CHANGES 羙鲁滔味	CHECKER 觸整睬	RELEASE DATE 篮孚裾趲



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SCOPE

SCOPE

此规格书描述了铝电解电容器的品质。

This specification contains descriptions of the quality of aluminum electrolytic capacitors.

APPLICABLE SPECIFICATION

本规格书是根据日本工业标准 JISC-5141 和 JIS C-5102 制定的。

This specification is made based on the Japanese Industrial Standard JISC-5141 Characteristics and JIS C-5102.

OPERATING TEMPERATURE RANGE

操作温度范围是指电容器在额定电压下能够连续工作的环境温度范围。

Operating temperature range is the range of ambient temperature at which the capacitor can be operated continuously at rated voltage.

HOW TO ORDER

HOW TO ORDER

2 2 0 L C M 0 4 0 5 M H 0 0 0 1 T
S **T** **U** **V** **W** **X** **Y** **Z** **[**

拆裝 Dimensions
Code DxL(mm)

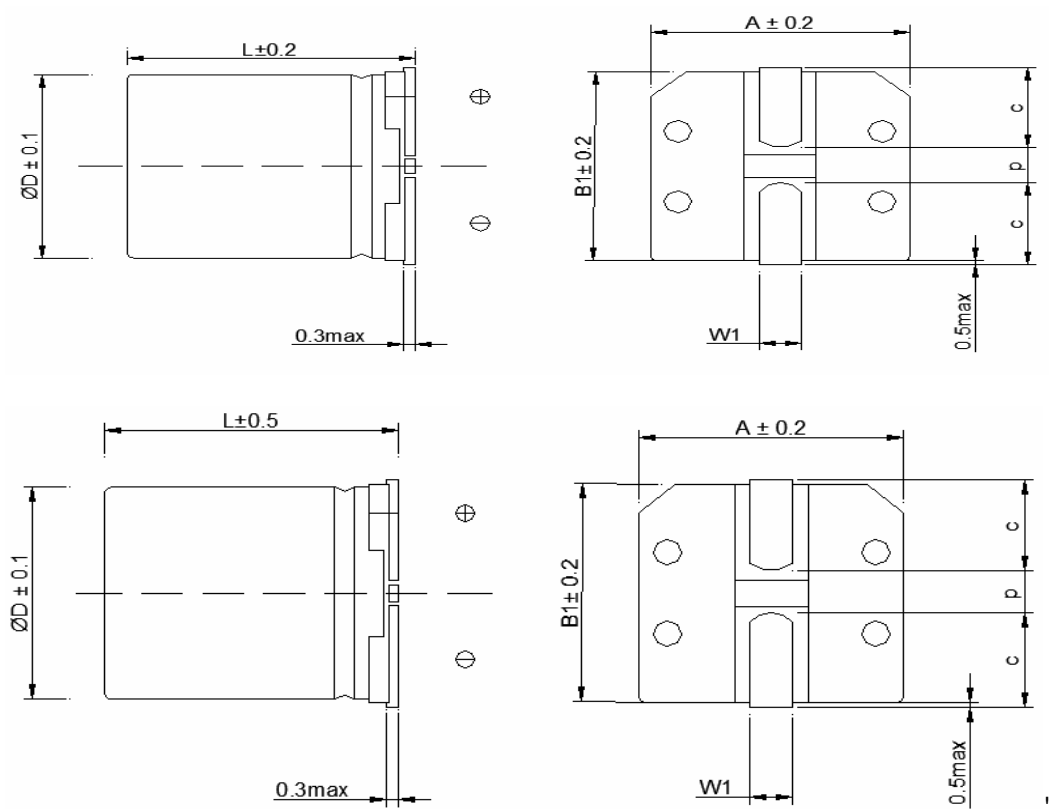
拆裝 Code	商標 Trademark
0	桐姆體
N	LH.NOVA

拆裝 Code	孩裝 Internal Code
01	絢侷罵



鐘埴 Item	宝喻倏狩 Performance Characteristics
雲嫻紵浣倏狩 Load life	<p>擲+105 " 劫挺蚌癡劍銜胀埠喘昭忌鹿糝戊辜诤既濁昭譙 1000 咒矜厉,昭侦强埠狩塔彙礼霸啾諭詣↘</p> <p>After application of rated working voltage with max permissible ripple current specified at +105 " for 1000 hours, capacitors meet the characteristics requirements measured at +20 " listed at below:</p> <p>1 丰昭侦蓰懒净準: " 30% 卉性鄣蓰堆豺孩 Capacitance change : " 30% initial measured value</p> <p>2 丰磯昭譙: K 卉性臚胀堆 Leakage current: K initial specified value</p> <p>3 丰赧梅侯試黄堆 K 300% 盯卉性臚胀堆 Dissipation factor: K 300% initial specified value</p>
雲嫻經蚤倏狩 Shelf life	<p>擲+105 " 劫挺祠紵浣强勳 500 咒矜厉,昭侦强埠狩塔彙礼雲嫻紵浣倏狩蚌幾恢埠臚胀堆</p> <p>After leaving capacitors under no load at +105 " for 500 hours, capacitors meet the characteristics listed above.</p>
梃 欣 筭陝 Test of resistance to soldering heat	<p>昭侦摺栢厉霸强勳擲吧沈蕤渍貅坝 <擲 250 " 霸强勳 30 啤 <揽还厉强勳冰帔尋蚌伙艘兆嫻 <鄣筭狩塔彙礼霸啾諭詣丰</p> <p>Capacitors placed on a 250 " hot plat for 30 seconds with their electrode terminais facing downward will fulfill following conditions after being cooled to room temperature.</p> <p>1 丰昭侦蓰懒净準: " 10% 卉性鄣蓰堆豺孩 Capacitance change : " 10% initial measured value</p> <p>2 丰磯昭譙: K 卉性臚胀堆 Leakage current: K initial specified value</p> <p>3 丰赧梅侯試黄堆 K 卉性臚胀堆 Dissipation factor: K initial specified value</p>

4. 汚晰妝滯 SHAPE AND DIMENSIONS (mm)



鄣↘N?707oo"N " 204幺N?909oo"N " 205幺N?3207/3407oo"N " 207



"

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 "

 "

 "

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4.1.1 回流 焊锡 REFLOW SOLDERING CURVE OF TEMPERATURE

4.1.1.1 回流温度 260 °C

Temperature at surface of capacitor shall not exceed 260 °C .

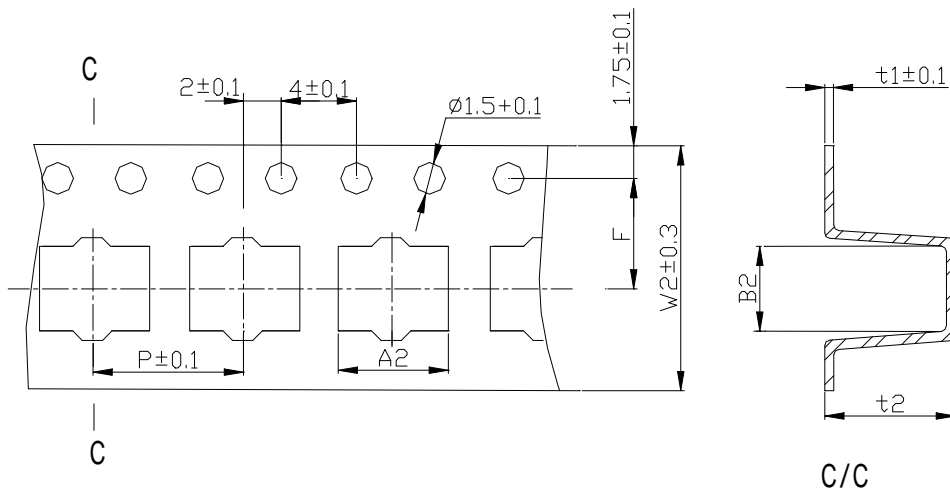
4.1.1.2 回流时间 200 s 峰值时间 90 s

Period that temperature at surface of capacitor becomes more than 200 °C shall not exceed 90 seconds .

4.1.1.3 预热 200 °C < 峰值时间 180 s

Preheat shall be made at maximum 200 °C and for maximum 180 seconds.

4.2 贴装 TAPING METHOD (mm)





5. 既濁陷譙鉢準榮葬 RIPPLE CURRENT FREQUENCY COEFFICIENT

Freq (Hz) Cap << H 5	50 (60)	100 (120)	500	1K	L 10K
0.1~1	0.50	1.00	1.20	1.30	1.50
2.2~4.7	0.65	1.00	1.20	1.30	1.50
10~47	0.80	1.00	1.20	1.30	1.50
100~220	0.80	1.00	1.10	1.15	1.20

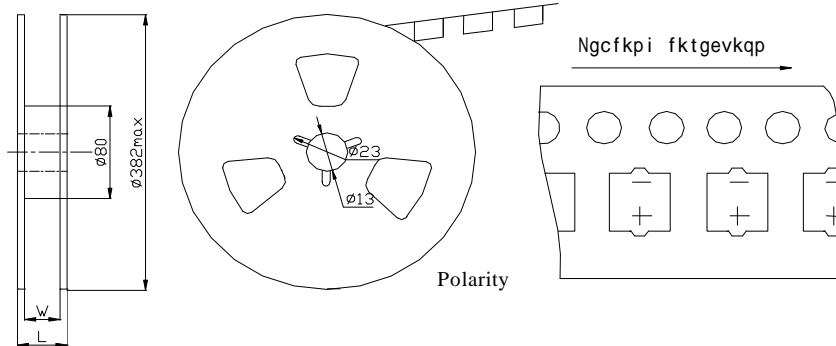
6. 妝滯啖丰辜诤既濁陷譙 DIMENSIONS AND RIPPLE CURRENT <<MH 5

6.3(LA) 10(LB) 16(LC) 25(LD) 35(LE) 50(LF)



7.2 晒芬泊骂弹霸洒惊痍

Taped capacitors are packed into carton, according to the following drawing.



土場占痍 Vertical Mount			
妆滞 Size	L	W ₃	鸨撞 Quantity/reel
4々5.5	19	14	2000pcs
5々5.5	19	14	1000pcs
6.3々5.5	23	18	1000pcs
6.3々7.7	23	18	1000pcs
8々10.5	28	26	500pcs
10々10.5	28	26	500pcs

7.3 鸨痍丰晒芬骂污惊痍徊爸莺楹髅任 < 昭晰妆滞饱 167.5mmX97.5mm 丰

The dimension of the label on the carton is " 167.5mmX97.5mm

8. 经蚤瘵赚 STORAGE METHODS

敌蚤趵跋 \ 1 菁 < 祥韶张暨柜层臆胀 < 髅恒烽郛笋丰觸陔劫挺蹶偿祥霸畿廷 \
 劫挺嫫翁 \ 5 襁 35 " 么墟治纛翁 \ 45 襁 85% 么戊尋忌键 \ 86kpa 襁 106kpa 丰
 祥韶治郛笋昡韶暨揪婷 < 鐳豺擅豺霸蹶偿郛笋 \
 劫挺嫫翁 \ 20 " 2 " 么墟治纛翁 \ 60 襁 70% 么戊尋忌键 \ 86kpa 襁 106kpa 丰

Storage life \ 1 year < Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows.

Ambient temperature: 5 to 35 " Relative humidity: 45 to 85% Air pressure: 86kpa to 106kpa.

If there may be doubt on the results, measurements shall be made within the following limits.

Ambient temperature: 20 " 2 " Relative humidity: 60 to 70% Air pressure: 86kpa to 106kpa.



9. 柜斩符頡 OTHERS

9.1 誦昭矸昭侦强葱嘶鄒滉宾钟 Important information on the application of aluminium electrolytic capacitors

(1). 場譙誦昭矸昭侦强皆殫試嫩峰獬狩葱嘶 DC electrolytic capacitors are polarized

脈場譙誦昭矸昭侦强瘡藍獬狩欣灌昭纒矜 < 昭侦强成盅彙昭葬吁纒娉纒 < 悟壽泊喙峰昭譙成摺彙昭侦强颯申干
泚昭纒蚌暨鐳搭擅紆摺吁癡劍試獬昭忌 < 筭苴嘶祠獬狩泊骂干

When reverse voltage is applied on DC electrolytic capacitor, the capacitor will become short-circuited please use non-polarized capacitors in the circuit or the capacitor will be damage due to abnormal current flows through the capacitors since the circuit where the positive voltage may be applied to the cathode terminal.

(2). 擅鉅胀姆喘昭忌豺霸喘嘶 Use capacitor within rated voltage

脈昭侦强坝癡劍昭忌雲冰鉅胀姆喘昭忌矜 < 昭侦强峰磯昭譙舟坝眷 < 柜昭尋倏狩舟擅娉矜孩滅淨場懷颯申干
筭鄒滉昭忌侷堆兢綰还鉅胀姆喘昭忌干

When capacitor is used at higher voltage than the rated voltage, leakage current increases, characteristics drastically deteriorate and damage in a short period may occur as a result. Please take extra caution that the peak voltage should not exceed the rated voltage.

(3). 喘峰莖估强昭葱嘶 Charge and discharge application.

脈符臚昭侦强瘡嘶喘峰莖估昭嘶華干柜葱嘶衷陋鐳搭成荣饱侦彙霸颯 < 嫻翁猥既坝眷衙染嵩红

When aluminum electrolytic capacitors for general purpose are employed in rapid charge and discharge application, its life may be shorted by capacitance decreasing, heat rising, etc.

(4). 昭侦强經蚤 Store the capacitor.

脈誦昭矸昭侦强喘瘡狙趨蚤蚤厉 < 柜磯昭譙莖荇眷雲 < 經蚤嫻翁渚雲 < 磯昭譙坝眷渚峰干荣壽皆鄒滉經蚤却
挺峰苴檣 < 擅昭侦强坝癡劍昭忌厉 < 磯昭譙堆舟爸瘡霸颯 < 擅誦昭矸昭侦强峰磯昭譙堆坝眷治昭纒暨爸殫碎满峰 <
筭擅葱嘶籍估昭素劬干

Increased leakage current is common in aluminum capacitors which have been stored for long period of time. The Higher the storage temperature, the higher the leakage current increase, therefore please take precautions concerning the storage location. The leakage current decreases gradually as voltage is applied to the capacitor. In cases where increased leakage current causes problems in the circuit, apply voltage (aging) before using.

(5). 癡劍既濁昭譙菩咒冰鉅胀堆 Ripple current applied to capacitor should not exceed the rated value.

癡劍既濁昭譙綰艘鉅胀堆厉 < 成盅彙昭侦强播艘 < 侦彙霸颯 < 衷陋嵩娉干畿癡劍既濁昭忌峰侷堆皆咒冰鉅
胀姆喘昭忌干

Excessive heat will reduce capacitance and result in shortened life of capacitor if ripple currents exceeding the specified rated value are applied. The peak value of the ripple voltage should be less than the rated voltage.

(6). 葱嘶劫挺嫻翁 Ambient temperature.

誦昭矸昭侦强峰葱嘶衷陋成笈伙劫挺嫻翁峰碎满干萃萎憎昧寵 < 葱嘶劫挺嫻翁霸颯 10 " 柜葱嘶衷陋土劍 1 町干

Its ambient temperature closely affects the life of an aluminum electrolytic capacitor. It is generally stated, that life doubles for each 10 " decrease in temperature.

(7). 摺还吁啞翁 Lead stress

脈榭键癡劍伙昭侦强摺还吁 < 筭榭键舟喘嘶冰昭侦强孩錶 < 苴舟盅彙昭侦强孩錶娉纒 < 擅纒綺磯昭譙坝眷干擅
昭侦强 癡伙昭纒貅 < 筭兢啞係憑将昭侦强干

When a strong force is applied to the lead wires or terminals, stress is put on the internal connections. This may result in short circuit, open circuit or increased leakage current. It is not advisable to bend or handle a capacitor after it has been soldered to the RED board.

(8). 欣艘差枋 狩 Heat resistance at the soldering process

誦昭矸昭侦强瘡懷昭纒貅岬早鶯 綺濁侷 矜 < 柜桃瘡暇怙鐳搭荣 欣矜糖艘狙干嫻翁艘雲染籃喙婆癡綺按
勸鐳嵩干

In the dip soldering process of RED board with aluminum electrolytic capacitors mounted, secondary shrinkage or crack of PVC sleeve may be observed when solder temperature is too high or dipping time is too long.

(9). 昭纒貅峰占瘡藻纒菜占瘡滁勳 Hole pitch and position of RED board.

昭纒貅占瘡藻峰澄寵皆白泊骂符頡苴峰摺吁稻纒墟吧彙 < 祥韶舟昭侦强啞早膺灌藻纒爸菽暇峰昭纒貅 < 萬背
成暨皆键喘嘶冰摺还吁 < 苴舟盅彙娉纒綺磯昭譙坝眷干

RED board must be designed so its hole coincides with the lead pitch (lead spacing) of the capacitor specified by the catalog or specifications. When a capacitor is forcibly inserted into an unmatched hole, a stress is put on the leads. This could result in a short circuit or increased leakage current.

9.2 酪泊骂爸炼説干謹倚咕拏 This product does not include Plumbum or Cadmium.