

Metallized Polypropylene Film EMI Suppression Capacitors

FY2 Series - Class Y2 300Vac/350 Vac

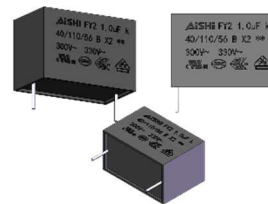


Overview

The FY2 series is constructed of metallized polypropylene film encapsulated with self-extinguishing resin in a box of material meeting the requirement of UL94V-0.

概述

FY2 采用金属化聚丙烯膜结构，使用自熄树脂封装于符合 UL94V-0 要求的塑料壳内。



Applications

Use in EMI filter in line-to-ground and line-by-pass applications requiring Y2 safety classification. Suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.

应用

用于要求 Y2 安全等级的接地，旁路的电磁干扰滤波等应用。适用于电容器失效后不会导致触电危险的场合。

Features

- High stability of capacitance
- High temperature (110°C)
- Self-healing property
- Over voltage stress withstanding
- Flame-retardant plastic case and resin

特点

- 高稳定性
- 耐高温 (110 度 C)
- 良好的自愈能力
- 过电压保护
- 阻燃塑料外壳及树脂

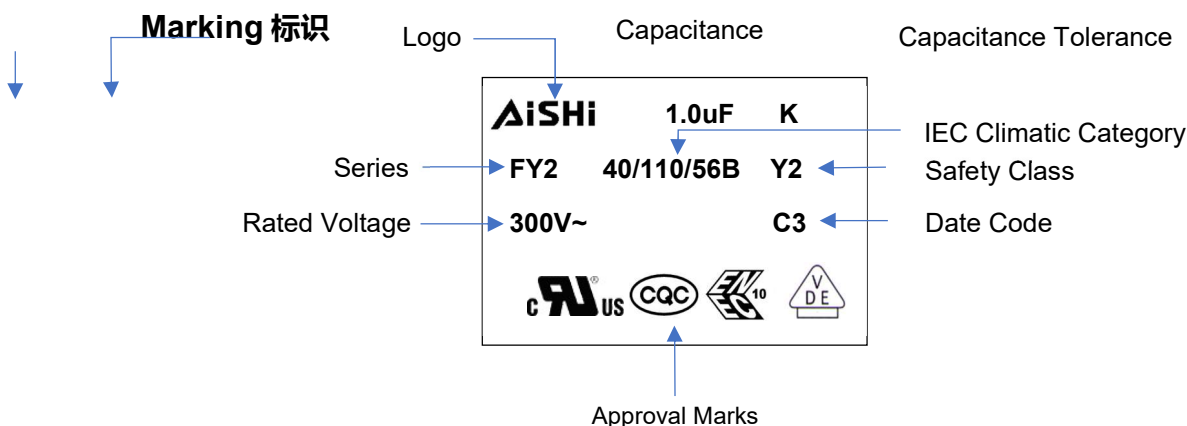


Approvals 认证

Marking	Standard	File Number
	UL 60384-14 CAN/CSA-E60384-14	E500538
	IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	40052687
	IEC 60384-14:2013+AMD1:2016 CQC11-471112-2015	CQC20001280148

Metallized Polypropylene Film EMI Suppression Capacitors

FY2 Series - Class Y2 300Vac/350 Vac



Manufacturing Date Code 生产周期码

Year	Code	Month	Code
2018	A	Jan	1
2019	B	Feb	2
2020	C	Mar	3
2021	D	Apr	4
2022	E	May	5
2023	F	Jun	6

Year	Code	Month	Code
2024	G	Jul	7
2025	H	Aug	8
2026	J	Sep	9
2027	K	Oct	A
2028	L	Nov	N
2029	M	Dec	D

Part Number System 料号编码原则

F	Y2	30	K	105	K24	2KL	5	RFAS
Capacitor Type	Series	Voltage (VAC)	Tolerance	Capacitance (pF)	Size Code	Terminal Code	Lead Length Code	Design code
F = Film	Class Y2, Metallized PP Film	30=300Vac 35=350Vac	J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$	First two digits = significant figures. Third digit = Number of zeros.	Refer to Size Code Table	Refer to Terminal Code Table	Refer to Lead Length Table	R:RoHS F:Customer A: 850°C GW S:AISHI

Terminal Code

引出端代码

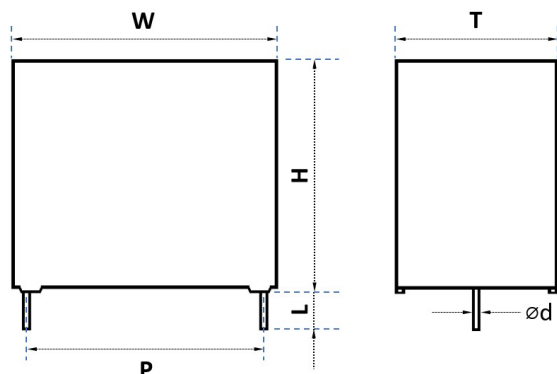
Digit One (Lead/Terminal Type)		Digit Two (Lead Space)		Digit Three (Lead Ipsilateral)	
2 leads for long	L	10.0mm	C	5.1mm	A
2 leads for straight cut	2	15.0mm	E	7.5mm	C
2 leads for forming cut	E	22.5mm	F	10.2mm	B
4 leads for straight cut	4	27.5mm	G	12.7mm	G
Taping forming	T	7.5mm	B	20.3mm	D
Taping Straight	V	5.0mm	A	N/A	L

Lead Length Code

引出端长度代码

Lead Length	
3.0mm	3
4.0mm	4
5.0mm	5
7.0mm	7
4.5mm	D
Taping	T
N/A	N

Dimension (mm) 外形图



2 pins

Size Code Table (mm) 尺寸表

Size	Dimension						Pitch		Lead Wire	
Code	W	Tolerance	H	Tolerance	T	Tolerance	P	Tolerance	Ød	Tolerance
C13	13	0.5	11	0.5	5	0.5	10	0.5	0.6	0.05
C16	13	0.5	12	0.5	6	0.5	10	0.5	0.6	0.05
E14	18	0.5	11	0.5	5	0.5	15	0.5	0.6	0.05
E17	18	0.5	12	0.5	6	0.5	15	0.5	0.6	0.05
E29	18	0.5	13.5	0.5	7.5	0.5	15	0.5	0.8	0.05
E34	18	0.5	14.5	0.5	8.5	0.5	15	0.5	0.8	0.05
E47	18	0.5	19	0.5	11	0.5	15	0.5	0.8	0.05
F14	26	0.8	15.5	0.8	6	0.8	22.5	0.5	0.6	0.05
F17	26	0.5	16.5	0.5	7	0.5	22.5	0.5	0.8	0.05
F20	26	0.8	17	0.8	8.5	0.8	22.5	0.5	0.8	0.05
F24	26	0.5	19	0.5	10	0.5	22.5	0.5	0.8	0.05
F27	26	0.5	22	0.5	12	0.5	22.5	0.5	0.8	0.05
F36	26	0.8	25	0.8	15	0.8	22.5	0.5	0.8	0.05
G15	32	0.8	18	0.8	9	0.8	27.5	0.5	0.8	0.05
G18	32	0.8	20	0.8	11	0.8	27.5	0.5	0.8	0.05
G21	32	0.8	22	0.8	13	0.8	27.5	0.5	0.8	0.05
G26	32	0.8	28	0.8	14	0.8	27.5	0.5	0.8	0.05
G33	32	0.8	28	0.8	18	0.8	27.5	0.5	0.8	0.05
G34	32	0.8	33	0.8	18	0.8	27.5	0.5	0.8	0.05
G40	32	0.8	37	0.8	22	0.8	27.5	0.5	0.8	0.05
K11	42	0.8	24	0.8	13	0.8	37.5	0.5	1.0	0.05
K17	42	0.8	28	0.8	17	0.8	37.5	0.5	1.0	0.05
K21	42	0.8	32	0.8	19	0.8	37.5	0.5	1.0	0.05
K24	42	0.8	40	0.8	20	0.8	37.5	0.5	1.0	0.05

Metallized Polypropylene Film EMI Suppression Capacitors

FY2 Series - Class Y2 300Vac/350 Vac



Rating and Part Number

Vac	Vdc	Cap Value	Dimensions				Peak Current	Surge Current	dv/dt	Lead Wire	Part Number
		μF	W	H	T	P					
300	1500	0.001	13	9	4	10	0.8	2.4	800	0.6	FY230K102C112CLDRFAS
300	1500	0.0015	13	9	4	10	1.2	3.6	800	0.6	FY230K152C112CLDRFAS
300	1500	0.0022	13	9	4	10	1.76	5.28	800	0.6	FY230K222C112CLDRFAS
300	1500	0.0033	13	11	5	10	2.64	7.92	800	0.6	FY230K332C132CLDRFAS
300	1500	0.0047	13	11	5	10	3.76	11.28	800	0.6	FY230K472C132CLDRFAS
300	1500	0.0047	13	12	6	10	3.76	11.28	800	0.6	FY230K472C162CLDRFAS
300	1500	0.0068	13	12	6	10	5.44	16.32	800	0.6	FY230K682C162CLDRFAS
300	1500	0.01	13	12	6	10	8	24	800	0.6	FY230K103C162CLDRFAS
300	1500	0.015	13	12	6	10	12	36	800	0.6	FY230K153C162CLDRFAS
300	1500	0.0047	18	11	5	15	2.82	8.46	600	0.6	FY230K472E142ELDRFAS
300	1500	0.0056	18	11	5	15	3.36	10.08	600	0.6	FY230K562E142ELDRFAS
300	1500	0.0068	18	11	5	15	4.08	12.24	600	0.6	FY230K682E142ELDRFAS
300	1500	0.0082	18	11	5	15	4.92	14.76	600	0.6	FY230K822E142ELDRFAS
300	1500	0.01	18	11	5	15	6	18	600	0.6	FY230K103E142ELDRFAS
300	1500	0.015	18	11	5	15	9	27	600	0.6	FY230K153E142ELDRFAS
300	1500	0.018	18	12	6	15	10.8	32.4	600	0.6	FY230K183E172ELDRFAS
300	1500	0.022	18	12	6	15	13.2	39.6	600	0.6	FY230K223E172ELDRFAS
300	1500	0.033	18	13.5	7.5	15	19.8	59.4	600	0.8	FY230K333E292ELDRFAS
300	1500	0.039	18	13.5	7.5	15	23.4	70.2	600	0.8	FY230K393E292ELDRFAS
300	1500	0.047	18	14.5	8.5	15	28.2	84.6	600	0.8	FY230K473E342ELDRFAS
300	1500	0.068	18	19	11	15	40.8	122.4	600	0.8	FY230K683E472ELDRFAS
300	1500	0.082	18	19	11	15	49.2	147.6	600	0.8	FY230K823E472ELDRFAS
300	1500	0.047	26	15.5	6	22.5	23.5	70.5	500	0.6	FY230K473F142FLDRFAS
300	1500	0.056	26	15.5	6	22.5	28	84	500	0.6	FY230K563F142FLDRFAS
300	1500	0.068	26	16.5	7	22.5	34	102	500	0.8	FY230K683F172FLDRFAS
300	1500	0.082	26	16.5	7	22.5	41	123	500	0.8	FY230K823F172FLDRFAS
300	1500	0.1	26	17	8.5	22.5	50	150	500	0.8	FY230K104F202FLDRFAS
300	1500	0.15	26	19	10	22.5	75	225	500	0.8	FY230K154F242FLDRFAS
300	1500	0.22	26	22	12	22.5	110	330	500	0.8	FY230K224F272FLDRFAS
300	1500	0.33	26	25	15	22.5	165	495	500	0.8	FY230K334F362FLDRFAS
300	1500	0.1	32	18	9	27.5	40	120	400	0.8	FY230K104G152GLDRFAS
300	1500	0.15	32	18	9	27.5	60	180	400	0.8	FY230K154G152GLDRFAS
300	1500	0.18	32	20	11	27.5	72	216	400	0.8	FY230K184G182GLDRFAS
300	1500	0.22	32	20	11	27.5	88	264	400	0.8	FY230K224G182GLDRFAS
300	1500	0.27	32	22	13	27.5	108	324	400	0.8	FY230K274G212GLDRFAS
300	1500	0.33	32	28	14	27.5	132	396	400	0.8	FY230K334G262GLDRFAS
300	1500	0.33	32	22	13	27.5	132	396	400	0.8	FY230M334G212GLDRFAS
300	1500	0.47	32	28	18	27.5	188	564	400	0.8	FY230K474G332GLDRFAS
300	1500	0.56	32	33	18	27.5	224	672	400	0.8	FY230K564G342GLDRFAS
300	1500	0.68	32	33	18	27.5	272	816	400	0.8	FY230K684G342GLDRFAS
300	1500	0.82	32	37	22	27.5	328	984	400	0.8	FY230K824G402GLDRFAS
300	1500	1	32	37	22	27.5	400	1200	400	0.8	FY230K105G402GLDRFAS
300	1500	0.47	42	24	13	37.5	141	423	300	1.0	FY230K474K112KLDRFAS
300	1500	0.68	42	28	17	37.5	204	612	300	1.0	FY230K684K172KLDRFAS
300	1500	0.82	42	32	19	37.5	246	738	300	1.0	FY230K824K212KLDRFAS
300	1500	1	42	40	20	37.5	300	900	300	1.0	FY230K105K242KLDRFAS

General Technical Data 性能指标

Applications 应用	Line-to-ground / Line-by-pass (Class Y2)
Dielectric 介质	Metallized Polypropylene Film
Reference Standard 引用标准	IEC 60384-14; UL 60384-14; GB/T 6346.14-2015
Climatic Category 气候类别	40/110/56 IEC60068-1
Passive Flammability Class 阻燃等级	B
Operating Temperature Range 工作温度范围	-55°C ~ +110°C
Protection 外封装	Solvent resistant plastic case UL94 V-0 Thermosetting resin sealing UL 94 V-0 compliant
Installation 安装方式	Any position
Packaging 包装	Packed in cardboard boxes with protection for the terminals
Storage Conditions 储存条件	Storage time: ≤ 24 months from the date marked on the label package Temperature and relative humidity should be -10°C ~ +40°C and not more than 75%RH. RH ≤ 85% for 30 days randomly distributed throughout the year
RoHS Compliance 环保要求	Compliant with the restricted substance requirements of Directive 2011/65/EU
Flame Retardant Grade 阻燃等级	Flame retardant performance accords with horizontal combustion grade HB and vertical combustion grade V-0.

Construction 结构设计

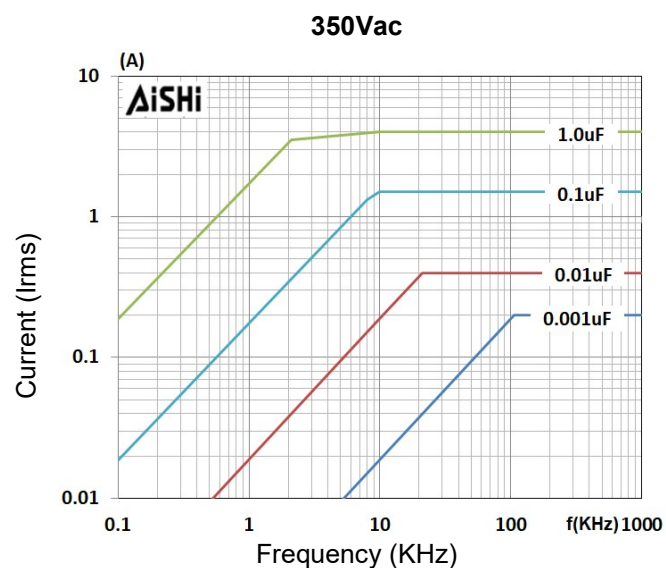
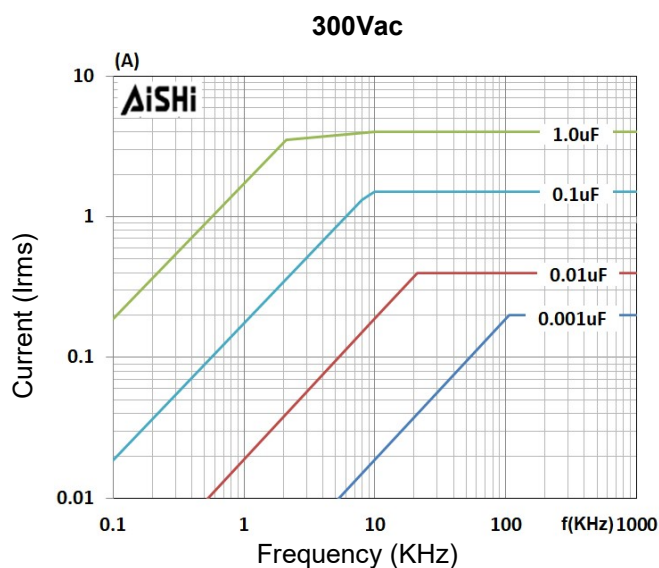
Metallized Film 薄膜材料	OPP & Al/Zn
Metal Sprayed 涂覆	Sn/Zn Alloy
Connection Electrode 连接电极	Copper clad steel wire or Tinned copper wires
Case 外壳	Plastic Case (UL94V-0)
Filling 填充	Epoxy Resin (UL94V-0)
Film Construction 薄膜结构	Internal Series Connection 

Electrical Characteristics 电气特性

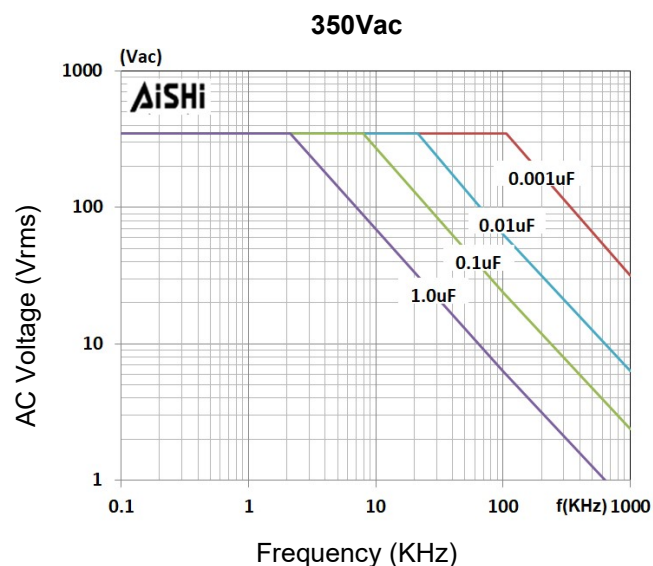
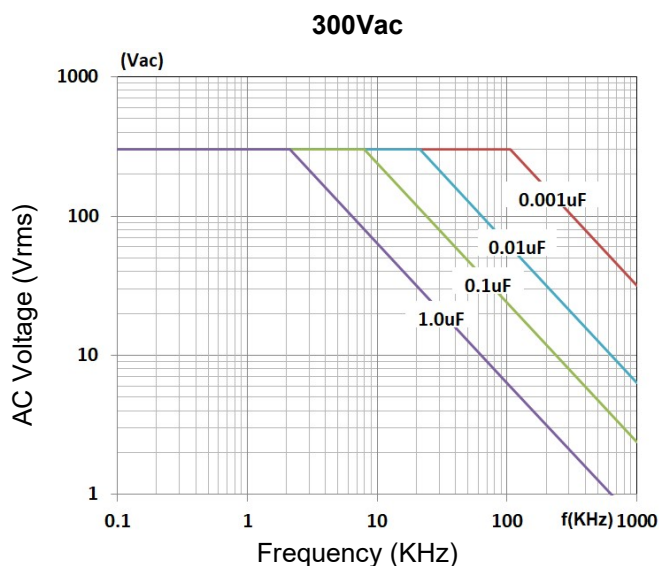
Voltage Range 电压范围	300Vac/350Vac 50/60Hz
Capacitance Range 容量范围	0.01 μ F to 0.22 μ F
Capacitance Tolerance 容量误差	$\pm 10\%$ or $\pm 20\%$ at +25°C
Capacitance 电容量标准测试	Measuring Frequency at 1kHz Measuring Voltage: 1 ± 0.2 V
Standard Atmospheric Conditions for Static Test 静态测试环境条件	Ambient temperature 15°C to 35°C (If there is any doubt on the results, the measurements shall be made at +20 $\pm$ 5°C) Relative humidity 45% to 75% (If there is any doubt on the results, the measurements shall be made at 60% to 70 %.) Air pressure 86 kPa to 106 kPa.
Voltage Between Terminals U_{TT} 极间耐压	AC Voltage: $U_R + 1200$ Vac for 60 seconds or $2U_R + 1200$ Vac for 2 seconds DC Voltage: 4000VDC for 2 seconds, charge current must be 1A maximum Withstanding (DC) voltage (cut off current 10mA), rise time 100V/S.
Voltage Between Terminals And Case U_{TC} 极壳耐压	2200Vac, 60 seconds (at +20 $\pm$ 2°C)
Dielectric Dissipation Factor $Tg\Delta 0$ 介质损耗角正切系数	$\leq 2 \times 10^{-4}$
Dissipation factor 损耗角	$C \leq 1.0\mu F$, $tg\sigma \leq 0.003$ (10KHz) ; $C > 1.0\mu F$, $tg\sigma \leq 0.002$ (1KHz)
Insulation Resistance 绝缘电阻	R between leads, for $C \leq 0.33 \mu F$ at 100 V; 1 min $> 15\,000\,M\Omega$ RC between leads, for $C > 0.33 \mu F$ at 100 V; 1 min $> 5000\,M\Omega \cdot \mu F$ T-C at 100 V; 1 min, $IR \geq 100000\,M\Omega$
Self-Inductance 自感	< 1 nH per mm of lead spacing
Life Expectancy 预期工作寿命	100 000hours (UR, $\Theta_{hotspot} = 85^\circ C$)
Failure Rate 失效率	100 Fit
Max. Altitude 最高使用海拔	2000 m

Characteristics Curve 特性曲线图

Maximum Current (I_{rms}) Vs Frequency

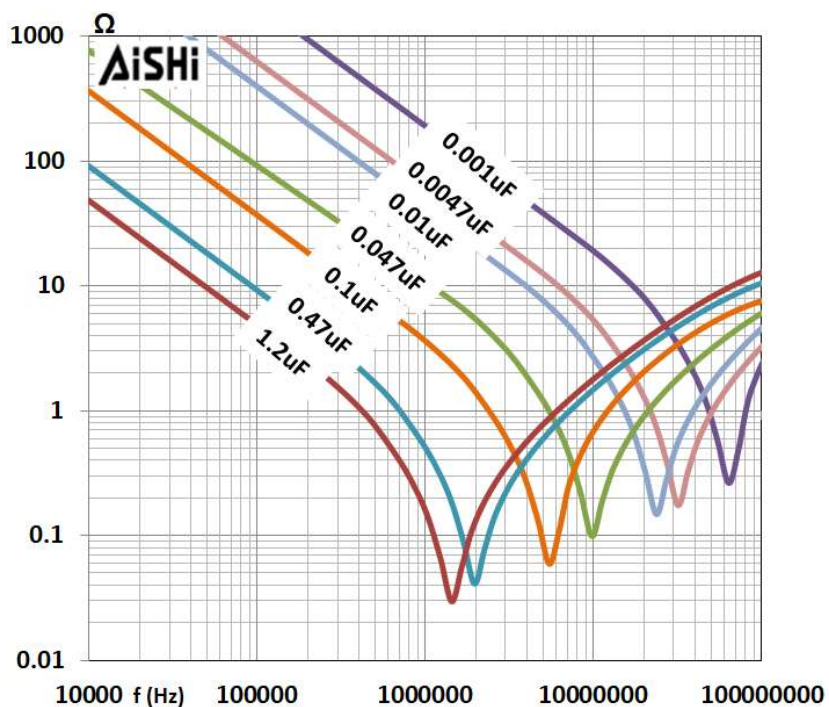


Maximum Voltage (V_{rms}) Versus Frequency



Characteristics Curve 特性曲线图

Impedence VS Frequency 阻抗 VS 频率



Environmental Test 环境测试

Solderability 可焊性试验	Test Conditions: Testing method per IEC 60068-2-20 Ta Soldering temperature: +245 +/- 5°C Immersion duration: 2 +/- 0.5 seconds Performance: More than 95% of circumferential surface of lead wire shall be covered with new solder.
Soldering Heat Resistance 耐焊接热试验	Test Conditions: Flow Soldering: Preheat temperature 100°C~120°C, Preheat Duration: 100 seconds maximum Soldering Temperature: +260 +/-5°C Immersion Duration: ≤10 seconds Immersion Depth: 1.5 +/- 0.5 mm from roots. Iron Soldering: Soldering Temperature: +400°C Immersion Duration: ≤3 seconds After test, allow it stay alone for 1.5 +/- 0.5 hours at standard temperature and humidity before making measurements. Performance: Capacitance Change Rate ($\Delta C/C$): ≤±2% Dissipation Factor ($\tan\delta$): ≤0.003 at 10 KHz. (C < 1.0uF) Dissipation Factor ($\tan\delta$): ≤0.002 at 1KHz. (C ≥ 1.0uF) Insulation Resistance: ≥50% of initial limit
Temperature Cycle 温度循环	Test Conditions: Test Temperature Cycle: Total 5 cycles Each cycle includes: 1. +20 +/- 2°C for 3 minutes 2. -40 +/- 3 °C for 30 minutes 3. +20 +/- 2°C for 3 minutes 4. +110 +/- 3/-0 °C for 30 minutes 5. +20 +/- 2°C for 3 minutes Performance: Capacitance Change Rate ($\Delta C/C$): ≤±5% Dissipation Factor ($\tan\delta$): ≤0.011 at 10 KHz. (C ≤ 1.0uF) Dissipation Factor ($\tan\delta$): ≤0.007 at 1KHz. (C > 1.0uF) Insulation Resistance: ≥50% of initial limit
Humidity Resistance 恒定湿热试验	Test Conditions: Testing method per IEC 60068-2-3 Ca Test Temperature: +40+/-2°C Test Humidity: 90% to 95% R.H. Test Duration: 1344 +24/-0 hours(56days) Performance: Capacitance Change Rate ($\Delta C/C$): ≤±5% Dissipation Factor ($\tan\delta$): ≤0.011 at 10 KHz. (C ≤ 1.0uF) Dissipation Factor ($\tan\delta$): ≤0.007 at 1KHz. (C > 1.0uF) Insulation Resistance: ≥50% of initial limit

Environmental Test 环境测试

Damp Heat Loading 湿热负荷试验	Test Conditions: Test Temperature: +40+/-2°C Test Humidity: 90% to 95% R.H. Test Duration: 1000+24/-0 hours Loading Voltage: Rated Voltage Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 10\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
Rapid Temperature Change 冷热冲击试验	Test Conditions: Testing method per IEC 60068-2-14 Na Test Temperature Cycle: Total 5 cycles High Temperature: +110+/-5 °C for 30 minutes Low Temperature: -40 +/-5°C for 30 minutes Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 5\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
High Temperature Loading 高温负荷试验	Test Conditions: Testing method per IEC 60384-14 Test Temperature: +110 +/-2°C Apply 170% of rated voltage for 1,000 +24/-0 hours; Each of these voltages shall be applied to each capacitor individually through a resistor of $47\Omega \pm 5\%$. Once every hour the voltage is increased to $1.5 \times U_R$ or 1000 V r.m.s., whichever is higher, for 0.1 seconds. Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 10\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit

Electrical Test 电气测试

Charge and Discharge 充放电测试	Test Conditions: 10000 cycles Charge to $\sqrt{2} \times VR$ (DC) Charge resistance: $R = \frac{220 \times 10^{-6}}{C_N} \Omega$ Discharge resistance: $R = \frac{\sqrt{2} \times VR (DC)}{1.25XC(dv/dt)} \Omega$ Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 5\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
Impulse Voltage 脉冲测试	Test Conditions: 3 successive impulses, full wave, peak voltage: Y2: 5.0 kV for $C \leq 1 \mu F$ Y2: 5.0 kV/ $\sqrt{C}$ for $C > 1 \mu F$ Max. 24 pulses Performance: No self-healing breakdowns or flashover
High Temperature Features 高温度特点	Test Conditions: Test Temperature: $+110 \pm 2^\circ C$ Test Duration: 16 $\pm 1/0$ hours Performance: Capacitance Change Rate ($\Delta C/C$): $-0 \sim -5\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
Low Temperature Features 低温度特点	Test Conditions: Test Temperature: $-40 \pm 2^\circ C$ Test Duration: 2 $\pm 1/0$ hrs. Performance: Capacitance Change Rate ($\Delta C/C$): $+0 \sim +5\%$ Dissipation Factor ($\tan \delta$): ≤ 0.011 at 10 KHz. ($C \leq 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.007 at 1KHz. ($C > 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit

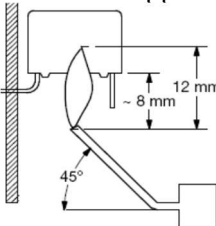
Mechanical Test 结构测试

Resistance to solvent 耐溶性试验	Test Conditions: Re: IEC 60068-2-45 test XA method 1 Solvent: propanol (isopropyl-alcohol) Temperature: 23±5°C Immersion time: 5 ±0.5 minutes Drying time: 5 minutes Mechanical treatment: 10 rubbing (with cotton-wool) Performance: Signs shall be kept clear Capacitance Change Rate ($\Delta C/C$): $\leq \pm 1\%$ Dissipation Factor ($\tan \delta$): ≤ 0.003 at 10 KHz. ($C < 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.002 at 1KHz. ($C \geq 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
Terminal Strength 引出端强度试验	Testing method per IEC 68-2-21. Tensile: $d \leq 0.8\text{mm}$ 10N $0.8\text{ mm} < d \leq 1.2\text{mm}$ 20N for 10 +/-1 second to the terminal in the axial direction and acting in a direction away from the body. Shall be no abnormality. Bending: $d \leq 0.8\text{ mm}$ 5N $0.8\text{ mm} < d \leq 1.2\text{ mm}$ 10N for 2 cycles. 90° once, return to its initial position for 2-3 seconds, and then to the opposite direction once. Shall be no abnormality.
Vibration Resistance 抗振性试验	Test Conditions: Testing method per IEC 60068-2-6 Fc Frequency Change: 10—55—10 Hz Vibration Distance : 1.5 mm Test Direction : X, Y, Z Test Duration: 2 +1/- 0 hours each direction Performance: Connection Strength: Shall be no open nor short-circuiting. The connection shall be stable Capacitance Change Rate ($\Delta C/C$): $\leq \pm 2\%$ Dissipation Factor ($\tan \delta$): ≤ 0.003 at 10 KHz. ($C < 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.002 at 1KHz. ($C \geq 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit
Mechanical Shock 机械冲击	Test Conditions: Pulse-shape: half-sine wave Acceleration: 500 m/s ² Duration of pulse: 11 ms Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 2\%$ Dissipation Factor ($\tan \delta$): ≤ 0.003 at 10 KHz. ($C < 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.002 at 1KHz. ($C \geq 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit

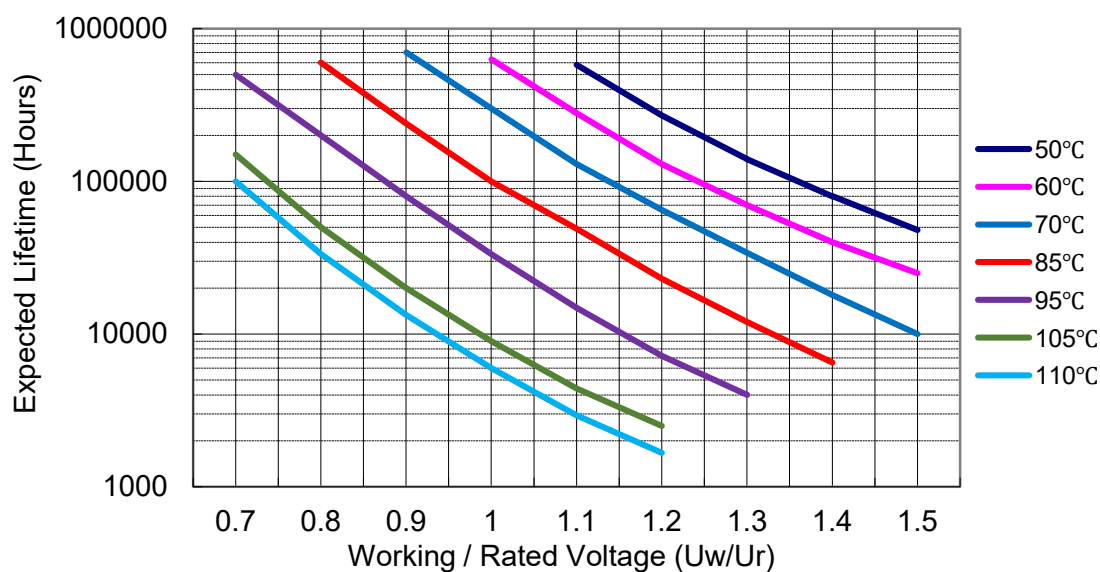
Mechanical Test 结构测试

Bump 撞击试验	Test Conditions: Total number of bumps: 1 000 times or 4 000 times Acceleration: 400 m/s² Pulse duration: 6 ms Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 2\%$ Dissipation Factor ($\tan \delta$): ≤ 0.003 at 10 KHz. ($C < 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.002 at 1KHz. ($C \geq 1.0\mu F$) DF change ($\Delta \tan \delta$): $\leq 50 \times 10^{-4}$ at 1 KHz. Insulation Resistance: $\geq 50\%$ of initial limit
Immersion cycle 浸渍周期	Test Conditions: To be immersed in the bath, one a clean water at temp. 65°C and the other saturated salt water bath at 0°C for 15 min . as lcycle, and to be repeated for 2cycles. The capacitor shall be washed in running water and let alone for 2 to 24hrs. Performance: Capacitance Change Rate ($\Delta C/C$): $\leq \pm 5\%$ Dissipation Factor ($\tan \delta$): ≤ 0.003 at 10 KHz. ($C < 1.0\mu F$) Dissipation Factor ($\tan \delta$): ≤ 0.002 at 1KHz. ($C \geq 1.0\mu F$) Insulation Resistance: $\geq 50\%$ of initial limit

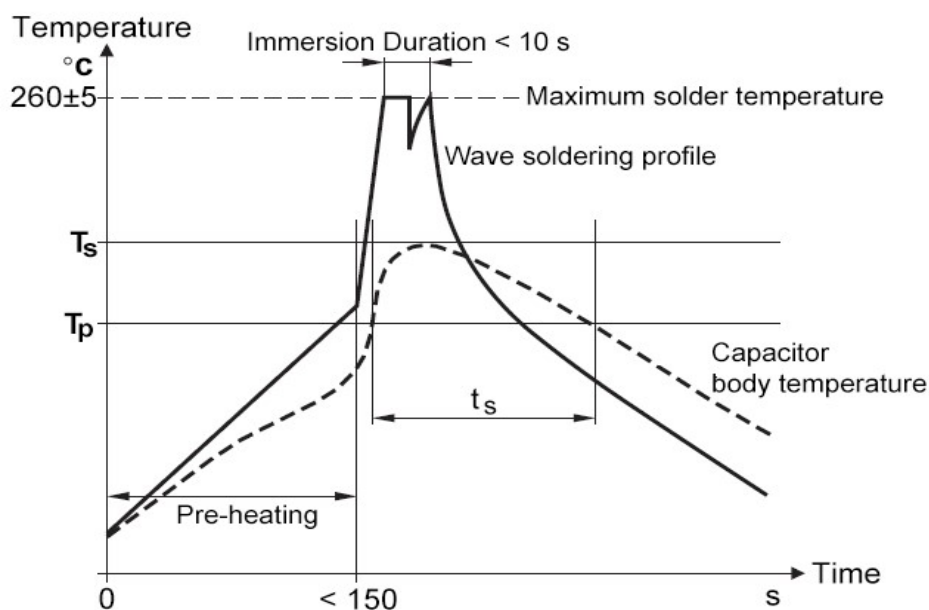
Flammability Test 阻燃测试

Passive Flammability Class B 被动可燃性测试 等级 B	Test Conditions: Bore of gas jet: $\varnothing 0.5$ mm Fuel: Butane Test duration for actual volume V in mm³: $V \leq 250$: 10 s $250 < V \leq 500$: 20 s $500 < V \leq 1750$: 30 s $V > 1750$: 60 s One flame application  Performance: After removing test flame from capacitor, the capacitor must not continue to burn for more than 10 seconds. No burning particle must drop from the sample.
Active Flammability 主动可燃性测试	Test Conditions: 20 cycles of 5.0 kV discharges on the test capacitor connected to URAC Performance: The cheese cloth around the capacitors shall not burn with a flame. No electrical measurements are required

Expected Life Curve 寿命曲线图



Wave Soldering Recommendations 波峰焊参数



T_s : Capacitor body maximum temperature at wave soldering

T_p : Capacitor body maximum temperature at pre-heating

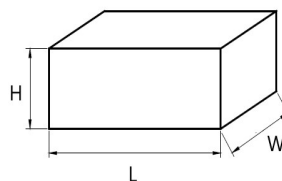
Polypropylene Capacitors 聚丙烯电容器	Polyester Capacitors 聚酯电容器
During pre-heating: $T_p \leq 110^\circ\text{C}$ During soldering: $T_s \leq 120^\circ\text{C}$, $t_s \leq 60$	During pre-heating: $T_p \leq 130^\circ\text{C}$ During soldering: $T_s \leq 160^\circ\text{C}$, $t_s \leq 60\text{s}$

Packaging Information 包装信息

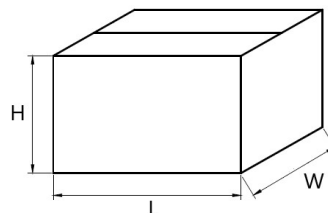
Metallized Polypropylene Film EMI Suppression Capacitors

FY2 Series - Class Y2 300Vac/350 Vac

Inner Box Specifications (Dimensions)			
Box #	L ±3mm	W±3mm	H ±3mm
# 1	331	331	25
# 2	331	331	35
# 3	331	331	50
# 4	331	331	80
# 5	350	170	35
# 6	350	170	50
# 7	350	170	80



Outer Box Specifications (Dimensions)			
Box #	L ±5mm	W±5mm	H ±5mm
# 1	350	340	265
# 2	370	360	350



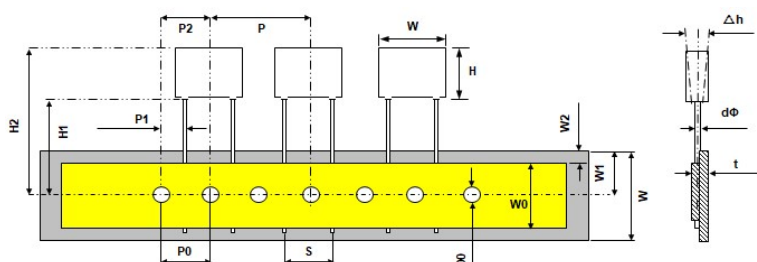
Packaging Quantity 包装数量

Pitch	Size Code	Dimension			Packaging Quantity		
		W	H	T	Long Leads	Short Leads	Ammo Pack
10.0	C13	13	11	5	1,200	1,488	680
	C16	13	12	6	1,200	1,224	560
15.0	E14	18	11	5	800	1,054	680
	E17	18	12	6	800	867	560
	E29	18	13.5	7.5	800	697	450
	E34	18	14.5	8.5	600	612	390
	E47	18	19	11	600	476	300
22.5	F14	26	15.5	6	612	612	350
	F17	26	16.5	7	528	528	300
	F20	26	17	8.5	432	432	250
	F24	26	19	10	372	372	210
	F27	26	22	12	300	300	170
	F36	26	25	15	240	240	140
27.5	G15	32	18	9	340	340	
	G18	32	20	11	280	280	
	G21	32	22	13	230	230	
	G26	32	28	14	220	220	
	G33	32	28	18	170	170	
	G34	32	33	18	170	170	
	G40	32	37	22	140	140	
37.5	K21	42	32	19	112	112	
	K11	42	24	13	161	161	
	K17	42	28	17	126	126	
	K24	42	40	20	105	105	

Lead Taping Information 编带信息

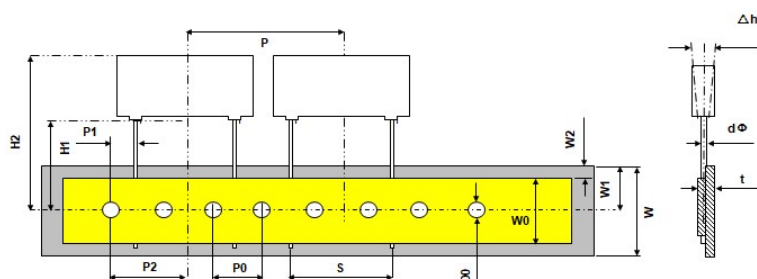
Taping Style: Straight leads

Lead spacing: 10 - 15mm



Quantity: 10pcs / line

Lead spacing: 22.5 – 27.5mm



Quantity: 6pcs / line

Taping Specification 编带参数

Description	Symbol	Dimension (mm)				Tolerance
Lead Spacing	S	10.0	12.5	15.0	22.5	+0.8/-0.2
Taping Pitch	P	25.4	25.4	25.4	38.0	±1.0
Feed Hole Pitch	P0	12.7	12.7	12.7	12.7	±0.2
Centering of Lead Wire	P1	7.7	6.5	5.2	7.80	±0.7
Centering of Body	P2	12.7	12.7	12.7	19.1	±1.3
Carrier Tape Width	W	18.0	18.0	18.0	18.0	±0.5
Hold Down Tape Width	W0	9.5	9.5	9.5	9.5	minimum
Hole Position	W1	9.0	9.0	9.0	9.0	±0.5
Hold Down Tape Position	W2	3.0	3.0	3.0	3.0	maximum
Feed Hole Diameter	D0	4.0	4.0	4.0	4.0	±0.2
Height of Component From Tape Center	H1	20.0	20.0	20.0	20.0	±0.5
Top Edge of Component	H2	39.0	39.0	39.0	44.0	maximum
Lead Wire Diameter	d	0.6	0.8	0.8	0.8	±0.1
Component Alignment	Δh	0.0	0.0	0.0	0.0	±2.0
Tape Thickness	t	0.7	0.7	0.7	0.7	±0.2

Cautions and Warnings 注意事项

- Don't exceed the upper category temperature.

不可超出最高类别温度

- For longtime storage, maximum relative humidity 80%, no dew allowed on the capacitor.

电容器长期存放时，最大相对湿度不可超过 80%，电容器表面不允许有结露

- Do not use or store capacitor in corrosive atmosphere, in the dusty environment's regular maintenance and cleaning especially of the terminals is required to avoid conductive path between terminal / or terminal and ground.

不要在腐蚀性的环境中使用或储存电容器，在有灰尘的环境中，接线端子应定期维护和清洁，以避免接线端子间或端子与地面之间的导电。

- Don't apply any mechanical stress to the capacitor terminals, and avoid any compressive, tensile or flexural stress.

不要在电容器端子上施加任何机械应力，避免任何压缩、拉伸或弯曲应力

- Don't move the capacitor after fixed to the PC board, and don't pick up the PC board by the fixed capacitor.

将电容器固定在 PC 板上后，不要移动或晃动电容器，也不要透过已固定的电容器拿起 PC 板。

- Don't place the capacitor on a PC board whose holes paces differs from the specified space.

不要将电容器放置于非指定不同孔位的 PC 板上。

- Avoid overload of the capacitors.

避免电容器过载使用。

- Do not have unlimited service life expectancy, the max service life expectancy may vary depending on the application the capacitor is used in.

电容器寿命不是无止尽的，最大的使用寿命可能会根据不同的电容器使用状况而变化。

Disclaimer 免责条款

All product, product specifications and data in this datasheet are subject to change without notice to improve reliability, function or design or otherwise. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

为提高产品可靠性、功能或产品设计上的持续不断改进，所有产品、产品规格和数据可随时更改而不需另行通知。客户在订购时，本规格书中包含的信息在多大程度上适用于订单。所有在此提供的信息被认为是准确和可靠的。

In individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer application requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or lifesaving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component. 在个别情况下，即使电子元件按规定操作，也不能完全排除在其通常使用寿命结束之前发生故障或故障的可能性。客户应用若要求高级别的操作安全性，特别是在电子部件的故障或失效可能危及人类生命或健康的应用中(例如在事故预防或救生系统中)，则必须通过客户适当的电路设计或客户采取的其他措施(例如，保护电路或冗余的计算)以确保在电子部件发生故障或失效的情况下，第三方不会受到伤害或损坏。

We continue efforts to improve our products. Therefore, the products described in this publication may change from time to time. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order. We also reserve the right to discontinue production and delivery of products. Consequently, we cannot guarantee that all products named in this publication will always be available.

我们持续努力改善我们的产品。因此，本规格书中所描述的产品可能会不时地发生变化。相应的产品规格也是如此。因此，请检查在您订购之前或订购时，本规格书中包含的产品描述和规格在多大程度上仍然适用。我们也保留停止生产和交付产品的权利。因此，我们不能保证本规格书中所列的所有产品都始终适用。

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of AiSHi. Product names and markings noted herein may be trademarks of their respective owners.

此份文件的知识产权归属艾华所有，艾华拥有其产品名称，产品标志及商标的所有权。