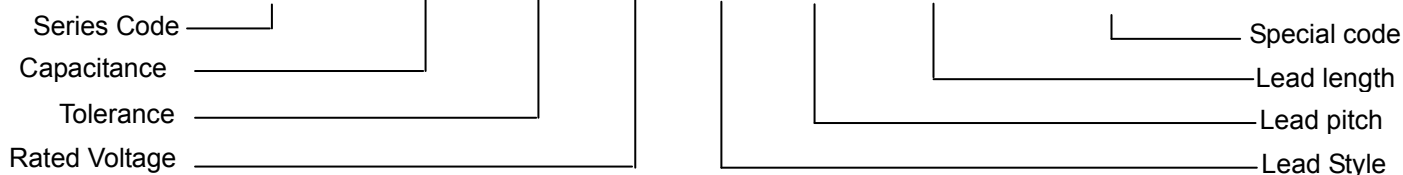


TYPE : MEF SPECIFICATION

ELECTRICAL CHARACTERISTICS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



Digit 1-3	Type	PEI	PEN	MEF	MEB	MET	MEA	MEM	MPX	EPI	MFT	MPM	MPC	MPL
		PPI	PPN	MPP	MPB	MPT	MPF	MPH	MPA	PPS	MFP	MPN	MPS	MPK
		MFA	MFB	MPQ	MPR	MET	MES	MFC						

Digit 4-6: Digit 4-5 indicate the first two figures of the capacitance value and the 6th digit indicate the number of zero added to obtain the rated capacitance in pF. EX. 102=1000pF=1nF=0.001 μF

Digit 7	Code	F			G			H			J		K		M
	Tolerance	±1%			±2%			±3%			±5%		±10%		±20%

Digit 8-9		A	B	C	D	E	F	G	H	J	K	L	M	N
	1				20				50	63			1100	15
	2	100	125	160	200	250	315	400	500	630	800	120		150
	3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	1200	1400	1500
		P	Q	R	S	T	U	V	W	X	Y			
	1	240	300	330	440	540	600	700	850	900				
	2	275	305	350	450	520		760						

Letter and then number indicate AC, but number and then Letter indicate DC.

EX. 2A=100VDC A2=100VAC

Digit 10	Code	A			B			C			D		X	
	Lead style	Straight lead			Kink-Cutted			Inward forming			outward forming		straight lead Cutted	
	Code	E			L			T			F		G	
	Lead style	Taping (Ammo) (直脚 TP, P0=12.7mm)			Taping (Ammo) (直脚 TP, P0=15.0mm)			Taping (Ammo) (同等彎 TP)			Taping (Ammo) (內彎 TP)		Taping (Ammo) (外彎 TP)	

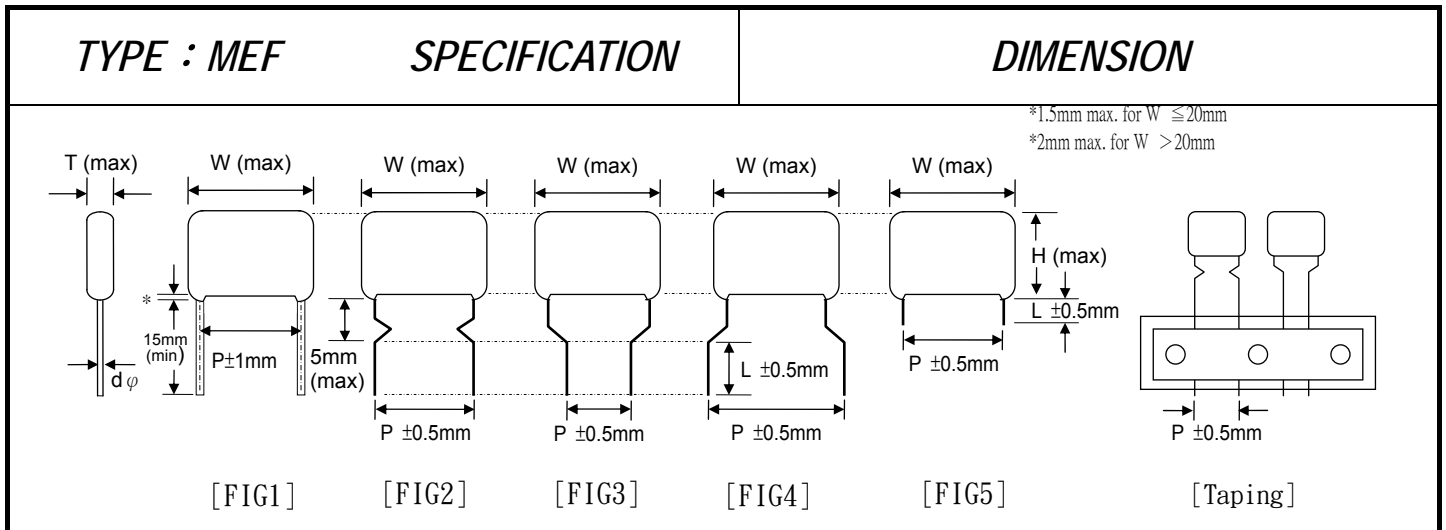
Digit 11-12	Code	P2	P3	P4	P5	P6	P8	P9	PA	PB	PC	PD	PE
	Pitch	3.5	4.0	4.5	5.0	6.0	7.0	7.5	8.0	9.0	10.0	31.0	15.0
	Code	PF	PG	PH	PJ	PK	PL	PM	PN	PP	PQ	PR	PS
	Pitch	20.0	21.0	22.0	22.5	28.5	52.5	27.5	30.0	32.5	41.0	12.5	17.5
	Code	PT	PU	PV	PW	PX	PY	PZ	PO				
	Pitch	51.0	27.0	37.5	25.0	12.0	35.0	16.0	Axial				

Digit 13-14	Code	L1*	L2	L3	L4	L5	L6	L7*	L8	L9	LA	LB	LC
	Length	15.0	3.5	4.0	4.5	10.0	15.0	20.0	TP	2.7	8.0	5.0	6.0
	Code	LD*	LE	LF	LG	LH	LJ*	LK	LL	LM	LN	LP	LQ*
	Length	26.0	7.5	5.5	12.0	7.0	25.0	13.0	6.5	3.0	9.0	2.5	17.0
	Code	LR	LS*	LU*	LW*	LX	LY*	LZ*	LV	LO*	LT*	VL*	
	Length	3.8	24.0	27.0	40.0	16.0	30.0	32.0	3.2	Axial	22	33	

Notes: * Straight, length is minimum

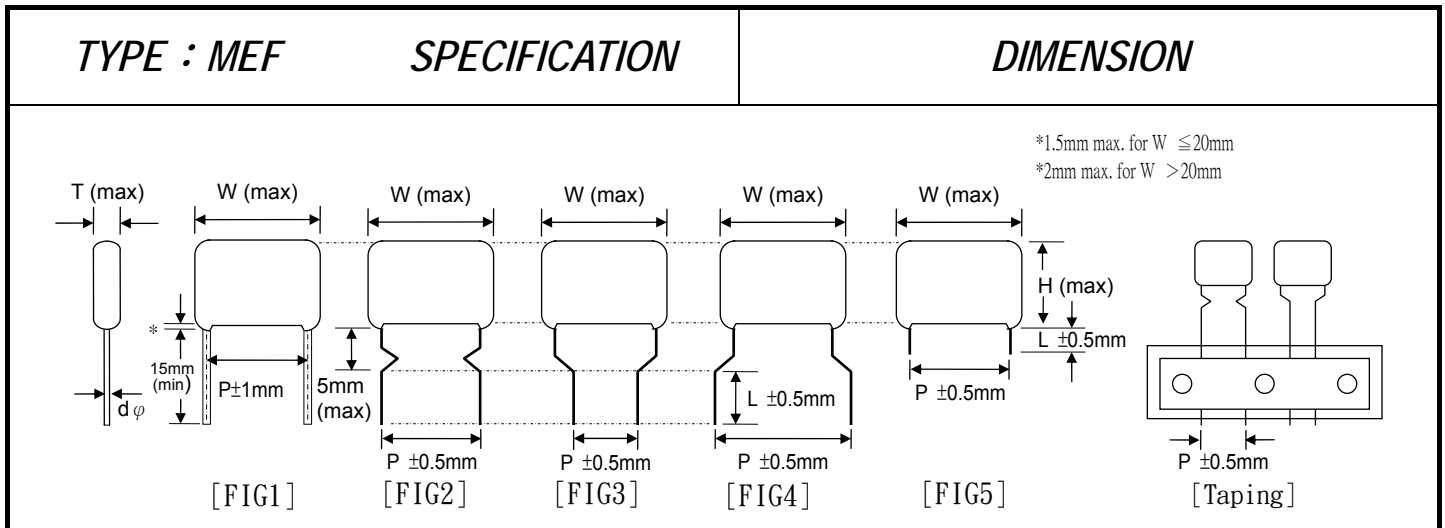
Digit 15-16	Code	Explanation		Code	Explanation		Code	Explanation	
	CT	The different color, The different size (T)		CW	The different color (Dark blue)& The different size (W)		EL	Low noise	
	HD	HF, The different color (Black)		CH	The different color (Dark blue)& The different size (H)		EE	Low ESR	
	TH	Humidity Bias Test		EA	Low noise, The different color		ED	Low ESR, The different size (H)	

Digit 17-18: Special Number.



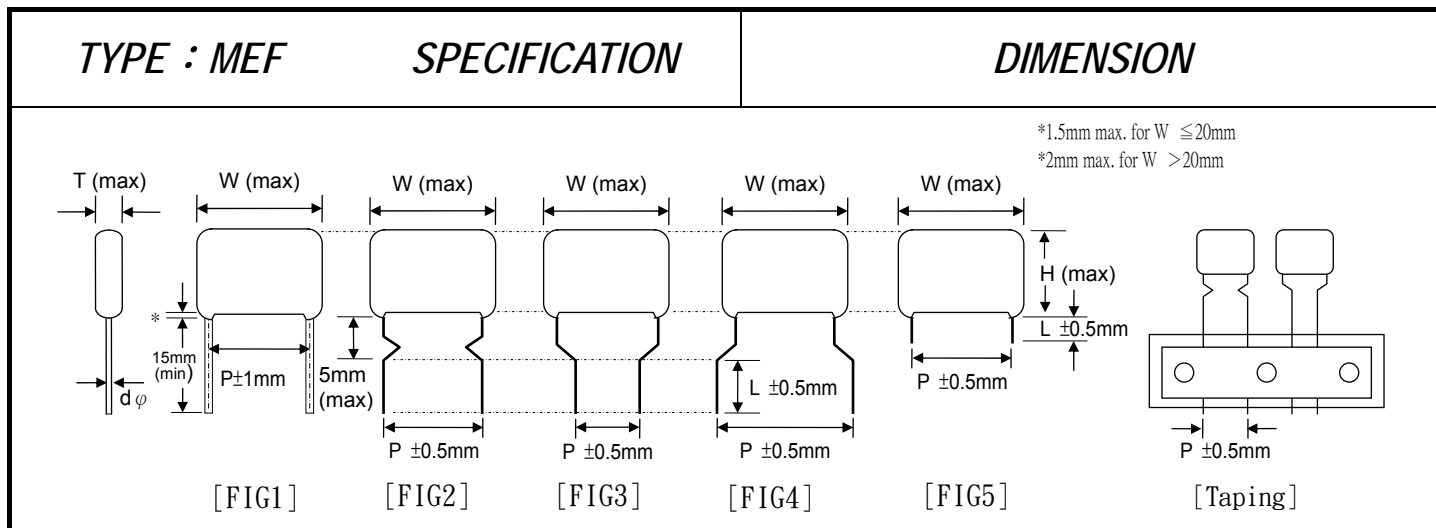
CAP. (μF)	VOLT. (VDC)	TOL. $\pm\%$	DIMENSION unit:mm					SCC P/N
			W	H	T	P	dφ ± 0.05	
0.047	250	10	10.5	9.5	6.0	7.5	0.6	MEF473K2E*P9**DT05
0.068	250	10	10.5	9.5	6.0	7.5	0.6	MEF683K2E*P9**DT05
0.1	250	10	10.5	9.5	6.0	7.5	0.6	MEF104K2E*P9**DT05
0.15	250	10	10.5	10.5	7.0	7.5	0.6	MEF154K2E*P9**DT08
0.22	250	10	13.0	10.5	7.0	10.0	0.6	MEF224K2E*PC**DT08
0.33	250	10	13.0	12.0	7.0	10.0	0.6	MEF334K2E*PC**DT08
0.47	250	10	18.0	13.5	8.0	15.0	0.8	MEF474K2E*PE**DT11
0.68	250	10	18.0	13.5	8.0	15.0	0.8	MEF684K2E*PE**DT11
1.0	250	10	18.0	15.0	8.5	15.0	0.8	MEF105K2E*PE**DT12
1.5	250	10	18.0	16.5	10.0	15.0	0.8	MEF155K2E*PE**DT16
2.2	250	10	23.0	18.5	10.5	20.0	0.8	MEF225K2E*PF**DT17
3.3	250	10	23.0	20.5	11.0	20.0	0.8	MEF335K2E*PF**DT18
4.7	250	10	31.0	21.0	12.5	27.5	0.8	MEF475K2E*PM**DT26
6.8	250	10	31.0	25.0	14.0	27.5	0.8	MEF685K2E*PM**DT24
10.0	250	10	31.0	28.0	17.5	27.5	0.8	MEF106K2E*PM**DT41

Note: 针对 Coating 产品, 产品脚长不能超出 35.0mm



CAP. (μF)	VOLT. (VDC)	TOL. $\pm\%$	DIMENSION unit:mm					SCC P/N
			W	H	T	P	dφ ± 0.05	
0.01	400	10	10.5	9.0	5.5	7.5	0.6	MEF103K2G*P9**DT04
0.015	400	10	10.5	9.0	5.5	7.5	0.6	MEF153K2G*P9**DT04
0.022	400	10	10.5	9.5	6.0	7.5	0.6	MEF223K2G*P9**DT05
0.033	400	10	10.5	9.5	6.0	7.5	0.6	MEF333K2G*P9**DT05
0.047	400	10	13.0	10.5	6.5	10.0	0.6	MEF473K2G*PC**DT07
0.068	400	10	13.0	10.5	6.5	10.0	0.6	MEF683K2G*PC**DT07
0.1	400	10	13.0	11.5	7.0	10.0	0.6	MEF104K2G*PC**DT08
0.15	400	10	13.0	12.0	7.5	10.0	0.6	MEF154K2G*PC**DT09
0.22	400	10	18.0	12.0	7.5	15.0	0.6	MEF224K2G*PE**DT09
0.33	400	10	18.0	13.5	8.5	15.0	0.8	MEF334K2G*PE**DT12
0.47	400	10	18.0	15.5	9.0	15.0	0.8	MEF474K2G*PE**DT15
0.68	400	10	18.0	17.0	11.0	15.0	0.8	MEF684K2G*PE**DT18
1.0	400	10	23.0	19.0	10.5	20.0	0.8	MEF105K2G*PF**DT17
1.5	400	10	23.0	21.5	12.0	20.0	0.8	MEF155K2G*PF**DT23
2.2	400	10	31.0	22.0	12.0	27.5	0.8	MEF225K2G*PM**DT23
3.3	400	10	31.0	24.0	15.0	27.5	0.8	MEF335K2G*PM**DT36

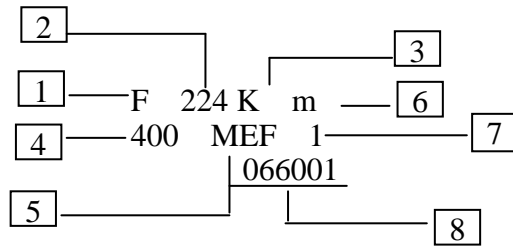
Note: 针对 Coating 产品, 产品脚长不能超出 35.0mm



CAP. (μF)	VOLT. (VDC)	TOL. $\pm\%$	DIMENSION unit:mm					SCC P/N
			W	H	T	P	$d\phi$ ± 0.05	
0.01	630	10	13.0	9.5	5.5	10.0	0.6	MEF103K2J*PC**DT04
0.015	630	10	13.0	9.5	6.0	10.0	0.6	MEF153K2J*PC**DT05
0.022	630	10	13.0	10.5	7.0	10.0	0.6	MEF223K2J*PC**DT08
0.033	630	10	13.0	11.0	7.0	10.0	0.6	MEF333K2J*PC**DT08
0.047	630	10	18.0	11.0	7.0	15.0	0.6	MEF473K2J*PE**ZX08
0.068	630	10	18.0	11.5	7.0	15.0	0.6	MEF683K2J*PE**ZX08
0.1	630	10	18.0	13.5	7.5	15.0	0.8	MEF104K2J*PE**DT09
0.15	630	10	18.0	14.5	8.0	15.0	0.8	MEF154K2J*PE**DT11
0.22	630	10	18.0	16.5	10.0	15.0	0.8	MEF224K2J*PE**DT16
0.33	630	10	23.0	17.5	9.5	20.0	0.8	MEF334K2J*PF**DT15
0.47	630	10	23.0	20.0	11.0	20.0	0.8	MEF474K2J*PF**DT18
0.68	630	10	31.0	20.0	11.0	27.5	0.8	MEF684K2J*PM**DT18
1.0	630	10	31.0	24.0	14.0	27.5	0.8	MEF105K2J*PM**DT24
1.5	630	10	31.0	26.5	17.0	27.5	0.8	MEF155K2J*PM**DT40

Note: 针对 Coating 产品, 产品脚长不能超出 35.0mm

● Marking

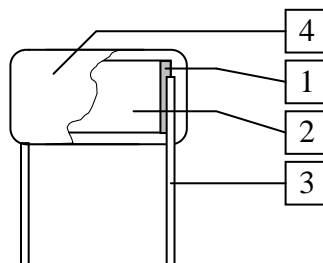


- | | | | |
|--------------------|------------------|---------------|---|
| 1 : Company symbol | 2 : Capacitance | 3 : Tolerance | 4 : Rated voltage |
| 5 : Type name | 6 : Year / Month | 7 : Week | 8 : Production batch number
(P ≥ 10.0mm, H ≥ 13.0mm) |

Year	Month	Mark	Year	Month	Mark	Year	Month	Mark	Year	Month	Mark
	1	A		1	N		1	a		1	n
	2	B		2	P		2	b		2	p
	3	C		3	Q		3	c		3	q
	4	D		4	R		4	d		4	r
2017	5	E	2018	5	S	2019	5	e	2020	5	s
2021	6	F	2022	6	T	2023	6	f	2024	6	t
2025	7	G	2026.	7	U	2027	7	g	2028	7	u
...	8	H	...	8	V	...	8	h	...	8	v
	9	J		9	W		9	j		9	w
	10	K		10	X		10	k		10	x
	11	L		11	Y		11	l		11	y
	12	M		12	Z		12	m		12	z

周期 4 年一個輪迴, 如 CODE:A, 代表: 2017 年 1 月, 2021 年 1 月, 2025 年 1 月, 2029 年 1 月, 2033 年 1 月...
 CODE:B, 代表: 2017 年 2 月, 2021 年 2 月, 2025 年 2 月, 2029 年 2 月, 2033 年 2 月...

● Construction



- | | |
|-----------------|-------------------------------|
| 1 : Metal spray | 2 : Metallized polyester film |
| 3 : Lead wire | 4 : Epoxy resin coating |

TYPE : MEF SPECIFICATION		ELECTRICAL CHARACTERISTICS		
No.	項目 Item	性能 Performance	條件 Test Conditions	參考標準 Reference Standard
1	使用溫度範圍 Operating Temperature Range	-40°C ~ +125°C (+85°C to 125°C: decreasing factor 1.25%/per°C for VR(DC))		IEC 60384-2 2.1.1 2.2.4
2	額定電壓 Rated Voltage	250VDC, 400VDC, 630VDC		IEC 60384-2 2.2.3
3	耐電壓 Withstand Voltage	端子間 Between Terminals 端子外裝間 Between Terminals & Enclosure	無異常 No abnormality.	Rated voltage x 160% 2 sec Charge and discharge current shall not exceed 10 mA IEC 60384-2 4.2.1
4	絕緣阻抗 Insulation Resistance	C ≤ 0.33μF VR > 100V 7,500Ω min VR ≤ 100V 3.750Ω min C > 0.33μF VR > 100V 2,500Ω*μF min VR ≤ 100V 1.250Ω*μF min	Charge time: 60 ±5sec. Charge voltage: VR < 100VDC: 50VDC VR < 500VDC: 100VDC VR ≥ 500VDC: 500VDC Test Temp: 20°C	IEC 60384-2 4.2.4
5	靜電容量 Capacitance	於指定範圍內 Within specified tolerance	at 1 KHz ±10% Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-2 4.2.2
6	散逸因數 Dissipation Factor	1.0 %max at 1KHz	Measure voltage at 1 Vrms Test temp: 20°C	IEC 60384-2 4.2.3
7	端子強度 Terminal Strength	抗拉強度 Pull Strength 扭轉強度 Bending Strength	端子不鬆斷 No cutting or slack of terminals	Wire diameter: 0.6&0.8 mm Load: 1 kg, time: 10 sec. Wire diameter: 1.0&1.2mm Load: 2 kg, time: 20 sec. Wire diameter: 0.6&0.8 mm 1.0 & 1.2mm 90° x 4 time IEC 60384-2 4.3
8	耐震性 Vibration Proof	無明顯異常 No abnormality of the appearance	Frequency range : 10-55-10-55 Hz Amplitude: 0.75 mm, 2 hrs/direction for 3 directions	IEC 60384-2 4.7
9	焊錫附著性 Solder ability	導線浸入後的表面至少需附著 95% 的新焊錫 At least 95% of the surface of the lead wire dipped into is covered with new solder.	Solder temp: 245°C ±5°C Immersion time: 2 ±0.5sec. Solder: SnAgCu (Sn:96.5% Ag:3% Cu:0.5%)	IEC 60384-2 4.5
10	焊錫耐熱性 Resistance to Soldering heat	外觀 Appearance 耐電壓 Withstand Voltage 靜電容量變化率 Capacitance Change 散逸因數 Dissipation Factor 絕緣阻抗 Insulation Resistance	無明顯異常 No abnormality on appearance 依項目 3 Comply with item 3 △C/C ≤ ±2% Within ±2% △DF ≤ 1.0 % at 1KHz Same as the spec of item 4 above	Solder temp: 265 ±5°C Immersion time: 10±0.5 sec. IEC 60384-2 4.4

TYPE : MEF SPECIFICATION			ELECTRICAL CHARACTERISTICS																
No.	項目 Item	性能 Performance	條件 Test Conditions	參考標準 Reference Standard															
11	耐寒性 Cold Resistance	靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$	Temperature: $-40 \pm 2^\circ\text{C}$ Duration: 96 \pm 4 hrs IEC 60384-2 4.10.4															
12	耐熱性 Dry Heat Resistance	絕緣阻抗 Insulation Resistance	50% of minimum specified value	Temperature: $+85 \pm 2^\circ\text{C}$ Duration: 96 \pm 4 hrs IEC 60384-2 4.10.2															
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$																
13	溫度循環 Temperature Cycle	外觀 Appearance	無明顯異常 No abnormality on appearance	Total: 6 cycle <table border="1" data-bbox="938 696 1230 864"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>$-40 \pm 2^\circ\text{C}$</td> <td>30 \pm1min</td> </tr> <tr> <td>2</td> <td>$+25 \pm 2^\circ\text{C}$</td> <td>10~15min</td> </tr> <tr> <td>3</td> <td>$+85 \pm 2^\circ\text{C}$</td> <td>30 \pm1min</td> </tr> <tr> <td>4</td> <td>$+25 \pm 2^\circ\text{C}$</td> <td>10~15min</td> </tr> </tbody> </table> IEC 60384-2 4.6	Step	Temp	Time	1	$-40 \pm 2^\circ\text{C}$	30 \pm 1min	2	$+25 \pm 2^\circ\text{C}$	10~15min	3	$+85 \pm 2^\circ\text{C}$	30 \pm 1min	4	$+25 \pm 2^\circ\text{C}$	10~15min
		Step	Temp		Time														
		1	$-40 \pm 2^\circ\text{C}$		30 \pm 1min														
		2	$+25 \pm 2^\circ\text{C}$		10~15min														
		3	$+85 \pm 2^\circ\text{C}$		30 \pm 1min														
4	$+25 \pm 2^\circ\text{C}$	10~15min																	
耐電壓 Withstand Voltage	依項目 3 Comply with item 3																		
絕緣阻抗 Insulation Resistance	50% of minimum specified value																		
靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$																		
散逸因數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)																		
14	穩態濕熱試驗 Damp heat Steady state	外觀 Appearance	無明顯異常 No abnormality on appearance 印字可辨識 Marking to be legible	Humidity: 90~95% RH Temperature: $+40 \pm 2^\circ\text{C}$ Duration: 504 \pm 1 hrs Measure after exposing at normal state for 1.5 \pm 0.5 hrs. IEC 60384-2 4.11															
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3																
		絕緣阻抗 Insulation Resistance	50% of minimum specified value																
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 5\%$ Within $\pm 5\%$																
		散逸因數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)																
15	高溫負荷 Endurance Test	外觀 Appearance	無明顯異常 No abnormality on appearance 印字可辨識 Marking to be legible	Temperature: $+85 \pm 3^\circ\text{C}$ Duration: 1,000 +48/-0 hrs Applied voltage 125% x V_R through series resistor of 20~1000 Ω/V to the Capacitor Measure after exposing at normal state for 4 hrs. IEC 60384-2 4.12															
		耐電壓 Withstand Voltage	依項目 3 Comply with item 3																
		絕緣阻抗 Insulation Resistance	50% of minimum specified value																
		靜電容量變化率 Capacitance Change	$\Delta C/C \leq \pm 8\%$ Within $\pm 8\%$																
		散逸因數 Dissipation Factor	$\Delta DF \leq 1.0\%$ at 1KHz (20°C)																