
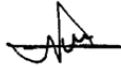



APPROVAL SHEET

ITEM : FILM CAPACITOR

TYPE : CMPP (X2 Capacitor)

SPEC : AC275V/AC310 ALL SERIES

DRAWN	CHECKED	APPROVED
		
2015.09.22.	2015.09.22.	2015.09.22.
Lee, Sang Won	Manager Park, Hyon Su	Director Lee, Jong woon



SUNGHO ELECTRONICS CORP.

♣ HEAD OFFICE

MAKER : SUNG HO ELECTRONICS CORP.

ADD : #459, KASAN-DONG, KUMCHON-GU, SEOUL, KOREA

TEL : (82) 02-853-8071~4 / FAX : (82) 02-853-8075

Homepage: www.sungho.net / E-mail : contact@sungho.net

♣ FACTORY (Manufactory)

MAKER #1: ZHUHAI SUNG HO ELECTRONICS CO.,Ltd.

ADD : NO.8, PINGXI RD 8, NANPING S&T INDUSTRIAL PARK,
ZHUHAI AVENUE E.,ZHUHAI CITY, GUANG DONG PROVINCE,
P.R OF CHINA

TEL : 86-756-868-0817 / FAX : 86-756-868-0002

MAKER #2: WEIHAI SUNG HO ELECTRONICS CO.,Ltd.

ADD : NO.1519, Hexing Road, Weihai, Shandong, China

TEL : 86-631-566-5661~3 / FAX : 86-631-566-5660

REVISION SHEET

P/N :

PART NAME : CMPP AC275V/AC310V SERIES

REVISION No




REV. REASON

REV. POINT

APPROVE DATE

EXAMINE

REMARK

DRAWN		CHECKED		APPROVED		1/4
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(DEPT)	Q .A	(ENACTMENT)	15. 09. 22.	REVISION 1	
CMPP TYPE APPROVAL SHEET				REVISION 2	
				REVISION 3	

1. SCOPE

This standard specification applies to metallized polypropylene film capacitors for AC power source stipulated under the following European and American standards. (CMPP TYPE)

2. INSPECTION ITEM

2.1 rated voltage : AC275V/AC310V (cUL(UL+CSA),ENEC(VDE),KC,CQC)

2.2 Self Heating Temperature : The maximum allowable rise is 7℃

2.3 Operating temperature : -40℃ ~ +105℃

2.4 Testing condition(JIS C 5102 3.2)

Unless otherwise specified. test and measurements shall be conducted at the standard condition 「ordinary temperature(15 to 35℃), ordinary humidity(relative humidity 45 to 75%)」, In case however doubt is entertained in judgment obtained from results, tests and measurements shall be conducted at the standard condition 「temperature(20±2℃), relative humidity(65±5%)

2.5 Construction and appearance

2.5.1 Appearance : See 「STYLE」

2.5.2 Dielectric : METALLIZED POLYPROPYLENE FILM

2.5.3 Coating : CASE

2.5.4 Lead wire : LEAD-WIRE(Tin plated)

3. PERFORMANCE

The performance shall be as given in the table 1.

4. MARKING

Marking shall be clear and legible to capacity, Capacity tolerance, rated voltage,SUNG HO Mark, Model Name, Manufacturing date code, Safety Mark, Applicable class, Structure range.

5. REMARKS

If there exist any other opinion it will be decided under the consultation of each concerning party.

6. SAFETY CERTIFICATE

SAFTY	VOLTAGE	CAPACITANCE VALUE	FILE NO
UL60384-14 / CAN/CSA-E60384-14 Fixed Capacitor - X2	AC275V/AC310V	0.0047μF~10.0μF	E327138
ENEC/CB(VDE) (IEC60384-14)	AC275V/AC310V	0.0047μF~10.0μF	40026078
KC(KTL)	AC275V/AC310V	0.0047μF~10.0μF	SU03030-7001B~7004B SU03030-13001A, 13002A / SU03064-13001~13006
CQC	AC275V/AC310V	0.0047μF~10.0μF	CQC13001095123 CQC13001095638 / CQC13001098793~4

APPROVAL SHEET(CMPP TYPE)

DRAWN



 CHEC
-KED



 APPR
-OVED



2

4

3. Performance. (Table 1)

No	Item	Test method	Performance
3-1	Operating temp.		-40℃ ~ +105℃
3-2	dielectric strength	T-T:(Terminal-Terminal) Apply DC1333V for a minute T-C:(Terminal-Cade) Apply AC2000V for a minute.	No abnormality.
3-3	Tolerance on Capacitance.	Checking spot is temperature 20±2℃ and frequency 1kHz±200Hz	K: ±10% Within Spec
3-4	Insulation resistance (T-T)	Capacitors are subjected D.C potential of 100V for a period of one min.	①C > 0.33μF: → 10,000Ω · F ↑ ②C ≤ 0.33μF: → 30,000MΩ ↑
3-5	Dielectric loss tangent	Checking spot is temperature 20±2℃ and frequency 1kHz±200Hz	1kHz : 0.10% ↓ 10kHz : C ≤ 0.1μF 0.1% ↓ 0.1μF < C ≤ 0.47μF 0.2% ↓ C > 0.47μF 0.7% ↓
3-6	Heat resistance	Test temperature shall be 105±2℃	1) C: Within -5%, +0% of the value before test 2) I.R : ①C > 0.33μF: 1000Ω · F ↑ ②C ≤ 0.33μF: 3000MΩ ↑
3-7	Cold resistance	Test temperature shall be -40±3℃	1) C: Within 0% ~ +5% of the value before test 2) tan δ : less than 0.1%
3-8	Moisture resistance	Capacitors shall be subjected the temperature at 40±2℃ and relative humidity at 90 to 95% for a period of 240 ⁺⁸ ₋₀ hours. It will be measured after removed from the humidity chamber and exposed under room condition for about 2~3 hours.	1) C: within ±10% of the value before test 2) tan δ : less than 0.1% 3) IR: ①C > 0.33μF: 3,000Ω · F ↑ ②C ≤ 0.33μF: 10,000MΩ ↑
3-9	Moisture resistance loading	Capacitors shall be subjected the temperature at 40±2℃ and relative humidity at 90 to 95% for a period of 500 ⁺²⁴ ₋₀ hours. A rated A.C Voltage shall be applied to the capacitors under test, It will be measured after removed from the humidity chamber and exposed under room condition for about 2~3hours.	1) C: within ±10% of the value before test 2) tan δ : less than 0.12% 3) IR: ①C > 0.33μF: 3,000Ω · F ↑ ②C ≤ 0.33μF: 10,000MΩ ↑

APPROVAL SHEET(CMPP TYPE)

DRAWN



 CHEC
-KED



 APPR
-OVED



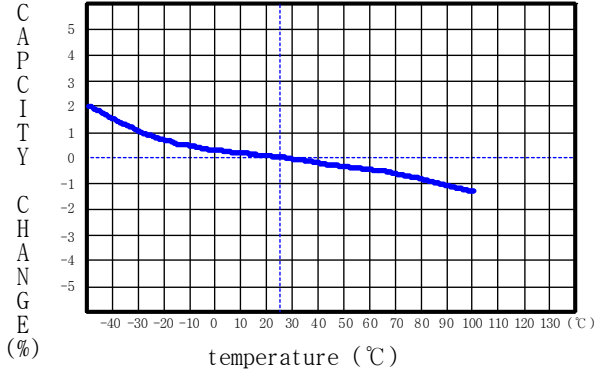
3

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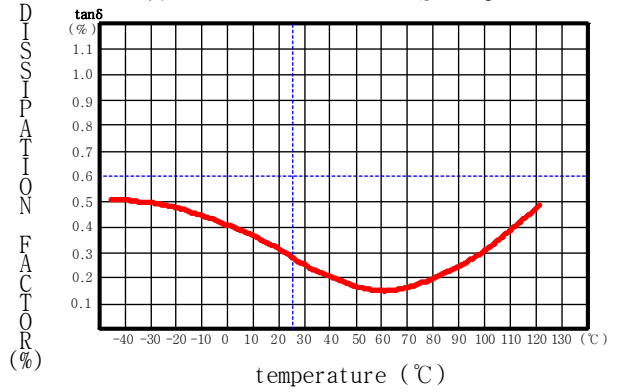
No	Item	Test method	Performance																		
3-10	High temperature loading	Voltage of (Rated voltage times 1.25) Vrms at 50Hz shall be applied for 1000 ⁺⁸ ₀ hours in a constant temperature tank of 105±2°C (Moreover, AC1000Vrms pulse shall be applied for 0.1 second once an hour) and than after cooling to room temperature and measured, the following requirements shall be satisfied.	1) C: within ±10% of the value before test 2) tan δ : less than 0.11% 3) IR: ①C > 0.33μF:5,000Ω · F ↑ ②C ≤ 0.33μF:15,000Ω ↑																		
3-11	Robustness of terminations	1) Pull test <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>lead diameter(mm)</th> <th>load(N)</th> <th>time(sec)</th> </tr> </thead> <tbody> <tr> <td>0.5 < d ≤ 0.8</td> <td>10</td> <td>10±1</td> </tr> <tr> <td>0.8 < d ≤ 1.25</td> <td>20</td> <td>10±1</td> </tr> </tbody> </table> 2) Bend test (2 cycle) <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>lead diameter(mm)</th> <th>load(N)</th> <th>(kg)</th> </tr> </thead> <tbody> <tr> <td>0.5 < d ≤ 0.8</td> <td>5</td> <td>0.51</td> </tr> <tr> <td>0.8 < d ≤ 1.25</td> <td>10</td> <td>1.00</td> </tr> </tbody> </table>	lead diameter(mm)	load(N)	time(sec)	0.5 < d ≤ 0.8	10	10±1	0.8 < d ≤ 1.25	20	10±1	lead diameter(mm)	load(N)	(kg)	0.5 < d ≤ 0.8	5	0.51	0.8 < d ≤ 1.25	10	1.00	No visible damage
lead diameter(mm)	load(N)	time(sec)																			
0.5 < d ≤ 0.8	10	10±1																			
0.8 < d ≤ 1.25	20	10±1																			
lead diameter(mm)	load(N)	(kg)																			
0.5 < d ≤ 0.8	5	0.51																			
0.8 < d ≤ 1.25	10	1.00																			
3-12	solderability	1) Solder specimen : H60A or H63A 2) Solder temp : 235±5°C 3) Dipping time : 2±0.5sec	At least 90% of the circumference of the surface up to the immersed shall be covered with new solder.																		
3-13	Resistance to soldering heat	Temperature of solder shall be 270±5°C Dipping time shall be 3±0.5sec.	1) C: Within ±3% of the value value before test 2) No abnormality																		
3-14	Vibration proof	The test shall be conducted for 2 hrs in each direction of any given three directions perpendicular to each other. 6.0hours in total. and 30min before the test is finished, the connection of element shall be investigated.	1) No abnormality 2) No electrical short circuit or disconnection of no less than 0.5ms shall appearance in the element. Stable connecting condition of the element.																		

7. Graph of Electric characteristic

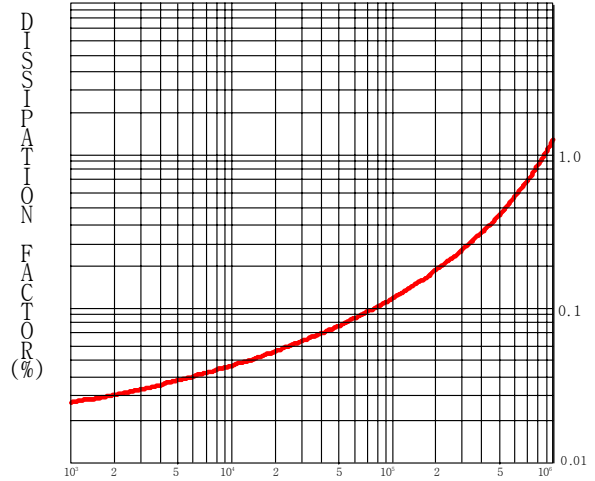
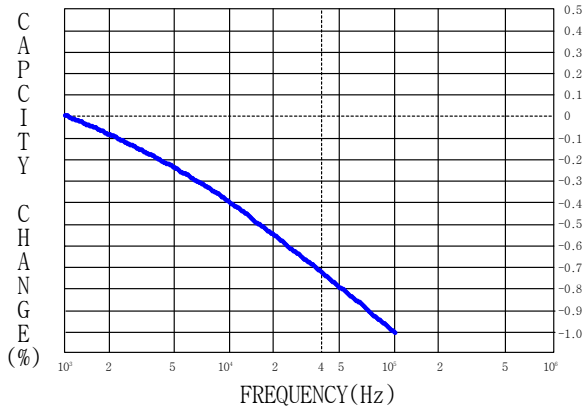
7.1 TEMPERATURE VS CAPACITANCE



7.2 TEMPERATURE VS tanδ



7.3 FREQUENCY CHARACTER

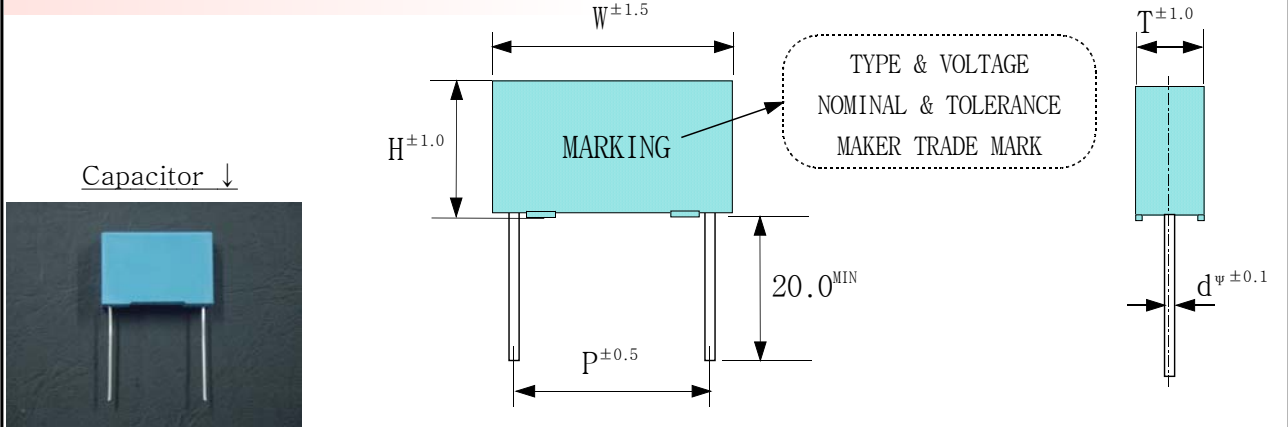


PRODUCTION FLOW CHART

Q.C PROCESS CONTROL		DESCRIP -TION	METALLIZED POLYPROPYLENE FILM CAPACITOR (CMPP)			REVISION DATE	2015. 09. 22.				
SPECIFICATION					CONTROL SPECIFICATION						
SECTION	FLOW	RUNNING MATERIAL		M/C & GAUGE	MFG CONDITION	MANAGEMENT CONTROL POINT					
		MATERIAL	TYPE			CATEGORY	CHARAC- TERISTIC	TIMES/ Q'TY	MEASUREMENT METHOD	CONTROL METHOD	
WINDING		METALLIZED POLYPROPYLENE FILM	CMPP	AUTO ELEMENT WINDING M/C	TEMP. : 25±5°C HUMIDITY : 30-65%	CAPACITANCE, ELEMENT STATUS	CAPACITANCE APPEARANCE	PER LOT N = 5	CAPACITANCE - METER , EYE, VERNIER CALIPERS	RECORD CHECK SHEET	
PRE- PRESS				AUTO PRE-PRESS MACHINE	PARTS FEEDER & LINEAL FEEDER ADJUSTING	PRESSURE	APPEARANCE		NAKED EYE		
PRESS				HYDRAULIC PRESS M/C SILICON RUBBER	T : 105±5°C P : 20-100kg/cm ² t : 2-5 MINUTES	TEMP. PRESSURE, TIME, Q'TY	APPEARANCE	TWICE PER DAY, EVERY LOT,	THERMOMETER, PRESSURE GAUGE, TIMER, BALANCE,	RECORD CHECK SHEET	
MASKING			TAPING		MASKING M/C	TAPE WIDTH (12, 13, 18, 23MM)	GAP	APPEARANCE	EVERY LOT	NAKED EYE	CHECK
METALLICON			First Spray Second Spray (1.6Φ)	Tin-Zn ALLOY	METALLICON M/C, DUST COLLECTOR	PRESSURE : 4-6kg/cm ² VOLTAGE : 12-24VDC TIMES : 4TIMES	THICKNESS OF METALLICON (OVER 0.5 MM)	APPEARANCE	TWICE PER DAY	VERNIER-CALIPERS, STAINLESS PLATE	RECORD CHECK SHEET
DEMASKING					DEMASKING MACHINE, CTN BOX	MOTOR REVOLUTION SPEED : 6-8	APPEARANCE	APPEARANCE	EVERY LOT	NAKED EYE	CHECK
DEBURRING					DIBURRING M/C	REVOLUTION SPEED : 4-5 TIME : 2-3 MINUTES	APPEARANCE	APPEARANCE	EVERY LOT	NAKED EYE	CHECK
LEAD WELDING			LEAD WIRE	0.6- 0.8mm	AUTO WELDING M/C,NIPPER, BALANCE WEIGHT (400g)	WELDING OUTPUT SET, CYCLE TIME SET, HEAD PRESSURE SET , LEAD CENTER PITCH ADJUST	WELDING OUTPUT, CYCLE, PRESSURE, WELD STRENGTH	LEAD WIRE ATTACHED CONVERSION N=5	PER LOT N=5,EVERY CONVERSION N=5	NAKED EYE, PUSH -PULL GAUGE, BALANCE WEIGHT	RECORD CHECK SHEET
SELF HEALING					AUTOMATIC SELF HEALING MACHINE	1ST CHARGE CONDENSER CAPACITANCE : 4.8, 12 uF, 1ST FILM μ × 50V, 2ND FILM μ × 100V	CAPACITANCE	CAPACITANCE	PER LOT N=5	RLC CHECKER	CHECK
CASE INSERTING			PBT CASE	CASE	AUTOMATIC WELDING / ASSEMBLY MACHINE	①CASE SUPPLY FEEDER , JIG ADJUST & EXCHANGE , ②ELEMENT TRANSIT LEVEL, DISTANCE ADJUST	LEAD CENTER, CASE CENTER	APPEARANCE	PER LOT	VERNIER- CALIPERS NAKED EYE, GAUGE	CHECK
PRIMARY EPOXY FILLING			EPOXY RESIN	EPOXY	AUTOMATIC EPOXY INSERTING MACHINE	EPOXY DE-AERATION , NOZZLE SELECTION , RESIN AMOUNT SET	APPEARANCE	APPEARANCE	PER LOT	NAKED EYE	CHECK
DRYING					AUTOMATIC DRYING MACHINE	TEMP : 85°C ±5°C , TIME : 60 MIN	TEMP TIME	APPEARANCE	PER LOT	THERMOMETER TIMER	CHECK
SECONDARY EPOXY FILLING			EPOXY RESIN	EPOXY	AUTOMATIC EPOXY INSERTING MACHINE	EPOXY DE-AERATION , NOZZLE SELECTION , RESIN AMOUNT SET	APPEARANCE	APPEARANCE	PER LOT	NAKED EYE	CHECK
DRYING					AUTOMATIC DRYING MACHINE	TEMP : 85°C ±5°C , TIME : 60 MIN	TEMP TIME	APPEARANCE	PER LOT	THERMOMETER TIMER	CHECK
APPEARANCE INSPECTION					LIMITED SAMPLE		PIN HOLE, EPOXY ATTACH, PRO - TURBULENCE	APPEARANCE	TOTAL Q'TY	NAKED EYE	RECORD CHECK, PALETO "& HISTOGRAM
AUTO MARKING			INK	INK	AUTO MARKING PRINT M/C	TYPE, SPEC,VOLTAGE, TOLERANCE, MFG DATE	MARKING CONDITION	INDICATION	TOTAL Q'TY	NAKED EYE	CHECK
ELECTRICAL INSPECTION					AUTO SORTING M/C AB-482(KOHAN) TCS-810-PS-M	CO tan δ TV IR C	CO tan δ TV IR C	Co tan δ TV IR C	TOTAL Q'TY	AUTO SORTING	RECORD CHECK, PALETO "& HISTOGRAM
PACKING			POLY BAG INNER BOX			CUT Q'TY: 100-500 S/Q'TY: 100-500	DIMENSION, Q'TY, PACKING - CONDITION	DIMENSION	PER LOT N=5 ALL LOT, TOTAL Q'TY	VISCOMETER BALANCE EYE INSPECTION	CHECK, LABEL
FINAL INSPECTION					DIMENSION, TV, IR, C, tan δ	DIMENSION, TV, IR, C, tan δ		AQL=0.65% AQL=0.65% AQL=0.65% AQL=0.65%	VERNIER CALIPERS PUNCHER TESTER IR METER C METER RLC CHECKER	RECORD, FINAL INSPECTION SHEET, PC	

DIMENSION(105°C CMPP)

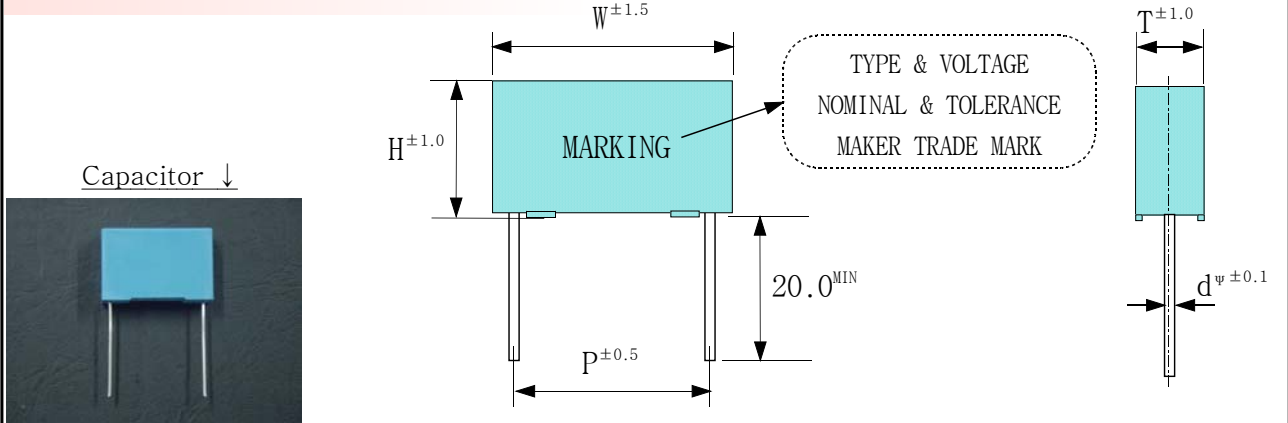
[STYLE]



CODE NO	VOLT	CAP(μF)	W±1.5	H±1.0	T±1.0	P±0.5	D±0.1
CMPP AC275V/AC310V472K7.5S5	AC275/AC310	0.0047	11.0	10.0	6.0	7.5	0.6
CMPP AC275V/AC310V472K10S5	AC275/AC310	0.0047	13.0	9.0	5.0	10.0	0.6
CMPP AC275V/AC310V562K7.5S5	AC275/AC310	0.0056	10.0	9.0	5.0	7.5	0.6
CMPP AC275V/AC310V562K10S5	AC275/AC310	0.0056	13.0	10.0	5.0	10.0	0.6
CMPP AC275V/AC310V682K7.5S5	AC275/AC310	0.0068	10.0	9.0	5.0	7.5	0.6
CMPP AC275V/AC310V682K10S5	AC275/AC310	0.0068	13.0	10.0	5.0	10.0	0.6
CMPP AC275V/AC310V822K7.5S5	AC275/AC310	0.0082	10.0	9.5	5.0	7.5	0.6
CMPP AC275V/AC310V822K10S5	AC275/AC310	0.0082	13.0	10.0	5.0	10.0	0.6
CMPP AC275V/AC310V103K7.5S5	AC275/AC310	0.01	10.0	9.0	5.0	7.5	0.6
CMPP AC275V/AC310V103K7.5S6	AC275/AC310	0.01	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V103K10S5	AC275/AC310	0.01	13.0	9.0	5.0	10.0	0.6
CMPP AC275V/AC310V103K10S6	AC275/AC310	0.01	13.0	11.0	5.0	10.0	0.6
CMPP AC275V/AC310V103K15S5	AC275/AC310	0.01	18.0	9.0	4.5	15.0	0.8
CMPP AC275V/AC310V123K10S5	AC275/AC310	0.012	13.0	11.0	5.0	10.0	0.6
CMPP AC275V/AC310V153K7.5S5	AC275/AC310	0.015	11.0	10.0	6.0	7.5	0.6
CMPP AC275V/AC310V153K7.5S6	AC275/AC310	0.015	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V153K10S5	AC275/AC310	0.015	13.0	9.5	4.5	10.0	0.6
CMPP AC275V/AC310V153K10S6	AC275/AC310	0.015	13.0	11.0	5.0	10.0	0.6
CMPP AC275V/AC310V153K15S5	AC275/AC310	0.015	18.0	8.5	4.5	15.0	0.8
CMPP AC275V/AC310V183K7.5S5	AC275/AC310	0.018	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V183K10S5	AC275/AC310	0.018	13.0	11.0	5.0	10.0	0.6
CMPP AC275V/AC310V223K7.5S5	AC275/AC310	0.022	10.0	9.0	5.0	7.5	0.6
CMPP AC275V/AC310V223K7.5S6	AC275/AC310	0.022	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V223K10S5	AC275/AC310	0.022	13.0	9.5	4.5	10.0	0.6
CMPP AC275V/AC310V223K10S6	AC275/AC310	0.022	13.0	12.0	6.0	10.0	0.6
CMPP AC275V/AC310V223K15S5	AC275/AC310	0.022	18.0	10.0	4.5	15.0	0.8
CMPP AC275V/AC310V273K15S5	AC275/AC310	0.027	18.0	11.0	5.0	15.0	0.8
CMPP AC275V/AC310V333K7.5S5	AC275/AC310	0.033	10.0	10.5	5.5	7.5	0.6
CMPP AC275V/AC310V333K7.5S6	AC275/AC310	0.033	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V333K10S5	AC275/AC310	0.033	13.0	10.0	4.5	10.0	0.6
CMPP AC275V/AC310V333K10S6	AC275/AC310	0.033	13.0	11.5	5.0	10.0	0.6
CMPP AC275V/AC310V333K15S5	AC275/AC310	0.033	18.0	10.0	4.5	15.0	0.8
CMPP AC275V/AC310V333K15S6	AC275/AC310	0.033	18.0	11.0	5.0	15.0	0.8
CMPP AC275V/AC310V393K7.5S5	AC275/AC310	0.039	11.0	13.0	9.0	7.5	0.6
CMPP AC275V/AC310V393K15S5	AC275/AC310	0.039	18.0	11.0	5.0	15.0	0.8
CMPP AC275V/AC310V473K7.5S5	AC275/AC310	0.047	10.0	10.5	5.5	7.5	0.6
CMPP AC275V/AC310V473K10S5	AC275/AC310	0.047	13.0	9.5	4.5	10.0	0.6
CMPP AC275V/AC310V473K10S6	AC275/AC310	0.047	13.0	13.0	7.0	10.0	0.6
CMPP AC275V/AC310V473K15S5	AC275/AC310	0.047	18.0	9.5	4.5	15.0	0.8
CMPP AC275V/AC310V473K15S6	AC275/AC310	0.047	18.0	11.0	5.0	15.0	0.8
CMPP AC275V/AC310V563K7.5S5	AC275/AC310	0.056	10.0	11.5	5.5	7.5	0.6
CMPP AC275V/AC310V563K10S5	AC275/AC310	0.056	13.0	10.0	5.0	10.0	0.6
CMPP AC275V/AC310V563K15S5	AC275/AC310	0.056	18.0	9.5	4.5	15.0	0.8
CMPP AC275V/AC310V563K15S6	AC275/AC310	0.056	18.0	11.0	5.0	15.0	0.8
CMPP AC275V/AC310V683K7.5S5	AC275/AC310	0.068	10.0	12.0	6.0	7.5	0.6
CMPP AC275V/AC310V683K10S5	AC275/AC310	0.068	13.0	10.5	5.5	10.0	0.6
CMPP AC275V/AC310V683K10S6	AC275/AC310	0.068	13.0	13.0	7.0	10.0	0.6

DIMENSION(105°C CMPP)

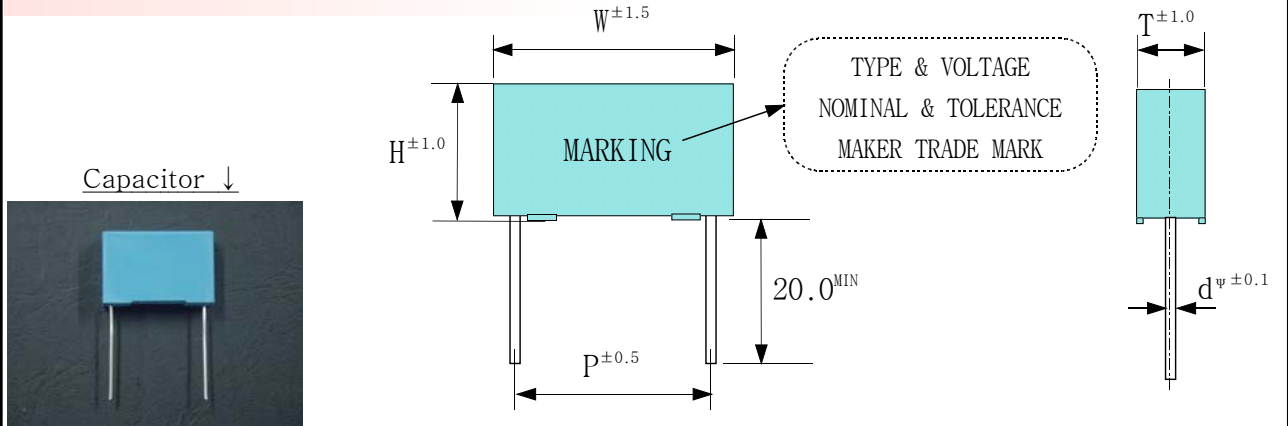
[STYLE]



CODE NO	VOLT	CAP(μF)	W±1.5	H±1.0	T±1.0	P±0.5	D±0.1
CMPP AC275V/AC310V683K15S5	AC275/AC310	0.068	18.0	10.0	4.5	15.0	0.8
CMPP AC275V/AC310V683K15S6	AC275/AC310	0.068	18.0	12.0	6.0	15.0	0.8
CMPP AC275V/AC310V823K7.5S5	AC275/AC310	0.082	10.0	12.5	6.5	7.5	0.6
CMPP AC275V/AC310V823K10S5	AC275/AC310	0.082	13.0	11.5	6.0	10.0	0.6
CMPP AC275V/AC310V823K10S6	AC275/AC310	0.082	13.0	13.0	7.0	10.0	0.6
CMPP AC275V/AC310V823K15S5	AC275/AC310	0.082	18.0	10.5	5.5	15.0	0.8
CMPP AC275V/AC310V823K15S6	AC275/AC310	0.082	18.0	12.0	6.0	15.0	0.8
CMPP AC275V/AC310V104K7.5S5	AC275/AC310	0.1	10.0	13.5	7.5	7.5	0.6
CMPP AC275V/AC310V104K10S5	AC275/AC310	0.1	13.0	11.5	5.5	10.0	0.6
CMPP AC275V/AC310V104K10S6	AC275/AC310	0.1	13.0	13.0	7.0	10.0	0.6
CMPP AC275V/AC310V104K15S5	AC275/AC310	0.1	18.0	10.0	5.0	15.0	0.8
CMPP AC275V/AC310V104K15S6	AC275/AC310	0.1	18.0	12.0	6.0	15.0	0.8
CMPP AC275V/AC310V104K15S7	AC275/AC310	0.1	18.0	8.5	10.0	15.0	0.8
CMPP AC275V/AC310V124K10S5	AC275/AC310	0.12	13.0	13.0	7.0	10.0	0.6
CMPP AC275V/AC310V124K15S5	AC275/AC310	0.12	18.0	10.0	5.0	15.0	0.8
CMPP AC275V/AC310V124K15S6	AC275/AC310	0.12	18.0	13.5	7.5	15.0	0.8
CMPP AC275V/AC310V154K10S5	AC275/AC310	0.15	13.0	12.0	7.0	10.0	0.6
CMPP AC275V/AC310V154K10S6	AC275/AC310	0.15	13.0	14.0	8.0	10.0	0.6
CMPP AC275V/AC310V154K12.5S5	AC275/AC310	0.15	15.0	11.5	6.0	12.5	0.6
CMPP AC275V/AC310V154K15S5	AC275/AC310	0.15	18.0	10.5	5.0	15.0	0.8
CMPP AC275V/AC310V154K15S6	AC275/AC310	0.15	18.0	12.0	6.0	15.0	0.8
CMPP AC275V/AC310V154K15S7	AC275/AC310	0.15	18.0	13.5	7.5	15.0	0.8
CMPP AC275V/AC310V154K15S8	AC275/AC310	0.15	18.0	8.5	12.0	15.0	0.8
CMPP AC275V/AC310V154K22.5S5	AC275/AC310	0.15	26.0	11.0	5.0	22.5	0.8
CMPP AC275V/AC310V184K15S5	AC275/AC310	0.18	18.0	12.0	6.0	15.0	0.8
CMPP AC275V/AC310V184K15S6	AC275/AC310	0.18	18.0	14.5	8.5	15.0	0.8
CMPP AC275V/AC310V224K10S5	AC275/AC310	0.22	12.5	16.0	6.5	10.0	0.6
CMPP AC275V/AC310V224K10S6	AC275/AC310	0.22	13.0	14.0	8.0	10.0	0.6
CMPP AC275V/AC310V224K12.5S5	AC275/AC310	0.22	15.0	12.5	7.0	12.5	0.6
CMPP AC275V/AC310V224K15S5	AC275/AC310	0.22	18.0	11.5	6.0	15.0	0.8
CMPP AC275V/AC310V224K15S6	AC275/AC310	0.22	18.0	14.0	7.0	15.0	0.8
CMPP AC275V/AC310V224K15S7	AC275/AC310	0.22	18.0	14.5	8.5	15.0	0.8
CMPP AC275V/AC310V224K15S8	AC275/AC310	0.22	18.0	17.5	9.5	15.0	0.8
CMPP AC275V/AC310V224K22.5S5	AC275/AC310	0.22	26.0	11.0	5.0	22.5	0.8
CMPP AC275V/AC310V224K22.5S6	AC275/AC310	0.22	26.0	15.0	6.0	22.5	0.8
CMPP AC275V/AC310V224K22.5S7	AC275/AC310	0.22	26.0	8.5	11.5	22.5	0.8
CMPP AC275V/AC310V224K22.5S8	AC275/AC310	0.22	26.0	16.0	7.0	22.5	0.8
CMPP AC275V/AC310V274K15S5	AC275/AC310	0.27	18.0	14.5	7.5	15.0	0.8
CMPP AC275V/AC310V274K15S6	AC275/AC310	0.27	18.0	15.5	8.5	15.0	0.8
CMPP AC275V/AC310V274K22.5S5	AC275/AC310	0.27	26.0	17.0	8.5	22.5	0.8
CMPP AC275V/AC310V334K10S5	AC275/AC310	0.33	12.5	19.0	8.0	10.0	0.6
CMPP AC275V/AC310V334K12.5S5	AC275/AC310	0.33	15.0	14.0	8.5	12.5	0.6
CMPP AC275V/AC310V334K15S5	AC275/AC310	0.33	18.0	13.5	6.5	15.0	0.8
CMPP AC275V/AC310V334K15S6	AC275/AC310	0.33	18.0	14.5	8.5	15.0	0.8
CMPP AC275V/AC310V334K15S7	AC275/AC310	0.33	18.0	15.5	8.0	15.0	0.8
CMPP AC275V/AC310V334K15S8	AC275/AC310	0.33	18.0	17.5	10.0	15.0	0.8
CMPP AC275V/AC310V334K22.5S5	AC275/AC310	0.33	26.0	12.0	6.0	22.5	0.8

DIMENSION(105 °C CMPP)

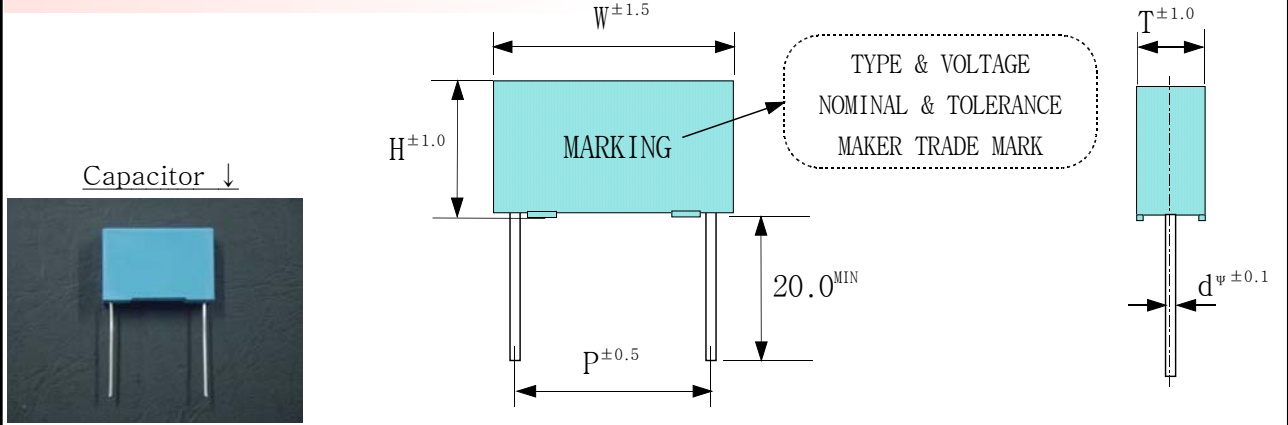
[STYLE]



CODE NO	VOLT	CAP(μF)	W±1.5	H±1.0	T±1.0	P±0.5	D±0.1
CMPP AC275V/AC310V334K22.5S6	AC275/AC310	0.33	26.0	17.0	7.0	22.5	0.8
CMPP AC275V/AC310V334K22.5S7	AC275/AC310	0.33	26.0	17.0	7.0	22.5	0.8
CMPP AC275V/AC310V334K22.5S8	AC275/AC310	0.33	26.0	8.5	14.5	22.5	0.8
CMPP AC275V/AC310V334K22.5S9	AC275/AC310	0.33	26.0	17.0	8.5	22.5	0.8
CMPP AC275V/AC310V394K12.5S5	AC275/AC310	0.39	15.0	15.0	9.0	12.5	0.6
CMPP AC275V/AC310V394K15S5	AC275/AC310	0.39	18.0	13.5	7.5	15.0	0.8
CMPP AC275V/AC310V394K15S6	AC275/AC310	0.39	18.0	17.0	8.0	15.0	0.8
CMPP AC275V/AC310V394K22.5S5	AC275/AC310	0.39	26.0	12.0	6.0	22.5	0.8
CMPP AC275V/AC310V394K22.5S6	AC275/AC310	0.39	26.0	19.0	10.0	22.5	0.8
CMPP AC275V/AC310V474K10S5	AC275/AC310	0.47	12.5	20.0	10.0	10.0	0.6
CMPP AC275V/AC310V474K12.5S5	AC275/AC310	0.47	15.0	16.0	10.0	12.5	0.6
CMPP AC275V/AC310V474K15S5	AC275/AC310	0.47	18.0	18.0	6.5	15.0	0.8
CMPP AC275V/AC310V474K15S6	AC275/AC310	0.47	18.0	14.0	8.0	15.0	0.8
CMPP AC275V/AC310V474K15S7	AC275/AC310	0.47	18.0	12.8	9.0	15.0	0.8
CMPP AC275V/AC310V474K15S8	AC275/AC310	0.47	18.0	16.0	10.0	15.0	0.8
CMPP AC275V/AC310V474K15S9	AC275/AC310	0.47	18.0	18.0	9.0	15.0	0.8
CMPP AC275V/AC310V474K22.5S5	AC275/AC310	0.47	26.0	14.5	6.5	22.5	0.8
CMPP AC275V/AC310V474K22.5S6	AC275/AC310	0.47	26.0	17.0	8.5	22.5	0.8
CMPP AC275V/AC310V474K22.5S7	AC275/AC310	0.47	26.0	19.0	10.0	22.5	0.8
CMPP AC275V/AC310V474K27.5S5	AC275/AC310	0.47	31.0	13.5	6.0	27.5	0.8
CMPP AC275V/AC310V474K27.5S6	AC275/AC310	0.47	31.0	18.0	9.0	27.5	0.8
CMPP AC275V/AC310V564K12.5S5	AC275/AC310	0.56	15.0	17.0	11.0	12.5	0.6
CMPP AC275V/AC310V564K15S5	AC275/AC310	0.56	18.0	15.0	9.0	15.0	0.8
CMPP AC275V/AC310V564K15S6	AC275/AC310	0.56	18.0	19.0	10.0	15.0	0.8
CMPP AC275V/AC310V564K22.5S5	AC275/AC310	0.56	26.0	14.0	7.0	22.5	0.8
CMPP AC275V/AC310V564K22.5S6	AC275/AC310	0.56	26.0	16.5	7.5	22.5	0.8
CMPP AC275V/AC310V564K22.5S7	AC275/AC310	0.56	26.0	17.0	9.5	22.5	0.8
CMPP AC275V/AC310V564K27.5S5	AC275/AC310	0.56	31.0	14.0	6.5	27.5	0.8
CMPP AC275V/AC310V564K27.5S6	AC275/AC310	0.56	31.0	20.0	11.0	27.5	0.8
CMPP AC275V/AC310V684K15S5	AC275/AC310	0.68	18.0	16.0	10.0	15.0	0.8
CMPP AC275V/AC310V684K15S6	AC275/AC310	0.68	18.0	18.5	11.0	15.0	0.8
CMPP AC275V/AC310V684K22.5S5	AC275/AC310	0.68	26.0	15.0	7.5	22.5	0.8
CMPP AC275V/AC310V684K22.5S6	AC275/AC310	0.68	26.0	17.0	8.0	22.5	0.8
CMPP AC275V/AC310V684K22.5S7	AC275/AC310	0.68	26.0	19.0	10.0	22.5	0.8
CMPP AC275V/AC310V684K27.5S5	AC275/AC310	0.68	31.0	15.5	6.5	27.5	0.8
CMPP AC275V/AC310V684K27.5S6	AC275/AC310	0.68	31.0	20.0	10.5	27.5	0.8
CMPP AC275V/AC310V824K15S5	AC275/AC310	0.82	18.0	17.5	10.0	15.0	0.8
CMPP AC275V/AC310V824K22.5S5	AC275/AC310	0.82	26.0	16.0	8.0	22.5	0.8
CMPP AC275V/AC310V824K22.5S6	AC275/AC310	0.82	26.0	18.0	9.0	22.5	0.8
CMPP AC275V/AC310V824K22.5S7	AC275/AC310	0.82	26.0	20.0	11.0	22.5	0.8
CMPP AC275V/AC310V824K27.5S5	AC275/AC310	0.82	31.0	16.0	8.0	27.5	0.8
CMPP AC275V/AC310V824K27.5S6	AC275/AC310	0.82	31.0	22.0	13.0	27.5	0.8
CMPP AC275V/AC310V105K15S5	AC275/AC310	1	18.0	19.0	11.5	15.0	0.8
CMPP AC275V/AC310V105K15S6	AC275/AC310	1	18.0	21.0	10.5	15.0	0.8
CMPP AC275V/AC310V105K22.5S5	AC275/AC310	1	26.0	17.0	9.0	22.5	0.8
CMPP AC275V/AC310V105K22.5S6	AC275/AC310	1	26.0	20.0	11.0	22.5	0.8
CMPP AC275V/AC310V105K22.5S7	AC275/AC310	1	26.0	22.0	12.0	22.5	0.8

DIMENSION(105 °C CMPP)

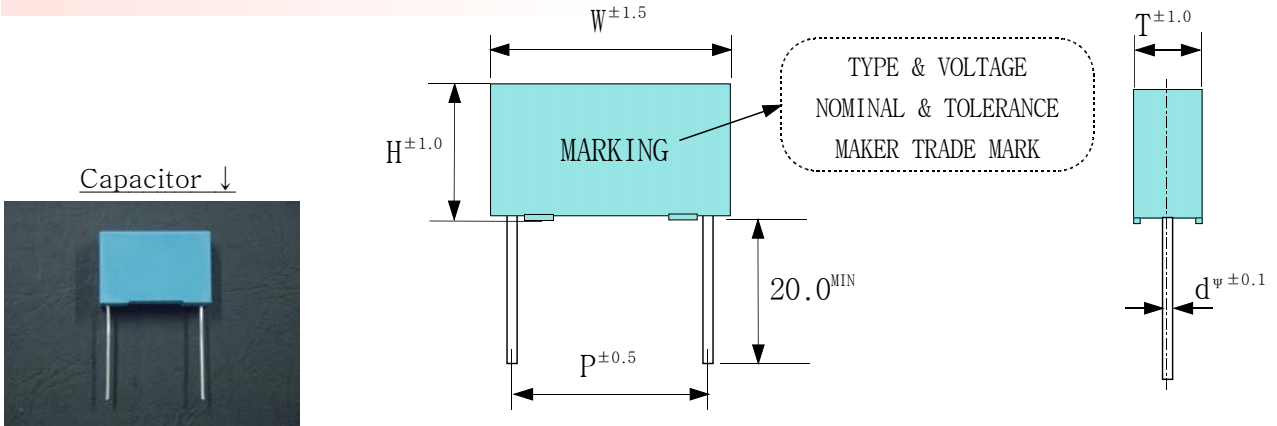
[STYLE]



CODE NO	VOLT	CAP(μF)	W±1.5	H±1.0	T±1.0	P±0.5	D±0.1
CMPP AC275V/AC310V105K27.5S5	AC275/AC310	1	31.0	17.0	8.0	27.5	0.8
CMPP AC275V/AC310V105K27.5S6	AC275/AC310	1	31.0	22.0	13.0	27.5	0.8
CMPP AC275V/AC310V125K22.5S5	AC275/AC310	1.2	26.0	19.0	9.0	22.5	0.8
CMPP AC275V/AC310V125K27.5S5	AC275/AC310	1.2	31.0	17.5	8.0	27.5	0.8
CMPP AC275V/AC310V125K27.5S6	AC275/AC310	1.2	31.0	22.0	13.0	27.5	0.8
CMPP AC275V/AC310V125K27.5S7	AC275/AC310	1.2	31.0	24.0	15.0	27.5	0.8
CMPP AC275V/AC310V155K22.5S5	AC275/AC310	1.5	26.0	21.0	10.0	22.5	0.8
CMPP AC275V/AC310V155K22.5S6	AC275/AC310	1.5	26.0	22.0	12.0	22.5	0.8
CMPP AC275V/AC310V155K22.5S7	AC275/AC310	1.5	26.0	24.0	15.5	22.5	0.8
CMPP AC275V/AC310V155K27.5S5	AC275/AC310	1.5	31.0	18.5	9.0	27.5	0.8
CMPP AC275V/AC310V155K27.5S6	AC275/AC310	1.5	31.0	24.0	14.0	27.5	0.8
CMPP AC275V/AC310V155K27.5S7	AC275/AC310	1.5	31.0	24.0	15.0	27.5	0.8
CMPP AC275V/AC310V155K27.5S8	AC275/AC310	1.5	31.0	25.0	15.0	27.5	0.8
CMPP AC275V/AC310V155K27.5S9	AC275/AC310	1.5	31.0	27.0	17.5	27.5	0.8
CMPP AC275V/AC310V185K22.5S5	AC275/AC310	1.8	26.0	21.0	12.5	22.5	0.8
CMPP AC275V/AC310V185K27.5S5	AC275/AC310	1.8	31.0	20.5	11.0	27.5	0.8
CMPP AC275V/AC310V185K27.5S6	AC275/AC310	1.8	31.0	27.0	16.5	27.5	0.8
CMPP AC275V/AC310V205K27.5S5	AC275/AC310	2	31.0	30.0	18.0	27.5	0.8
CMPP AC275V/AC310V225K22.5S5	AC275/AC310	2.2	26.0	22.0	13.5	22.5	0.8
CMPP AC275V/AC310V225K22.5S6	AC275/AC310	2.2	26.0	25.0	15.0	22.5	0.8
CMPP AC275V/AC310V225K27.5S5	AC275/AC310	2.2	31.0	21.0	12.5	27.5	0.8
CMPP AC275V/AC310V225K27.5S6	AC275/AC310	2.2	31.0	26.0	16.5	27.5	0.8
CMPP AC275V/AC310V225K27.5S7	AC275/AC310	2.2	31.0	30.0	18.0	27.5	0.8
CMPP AC275V/AC310V225K27.5S8	AC275/AC310	2.2	31.0	33.0	18.5	27.5	0.8
CMPP AC275V/AC310V335K27.5S5	AC275/AC310	3.3	31.0	29.0	15.5	27.5	0.8
CMPP AC275V/AC310V335K27.5S6	AC275/AC310	3.3	31.0	26.0	17.5	27.5	0.8
CMPP AC275V/AC310V335K27.5S7	AC275/AC310	3.3	31.0	31.0	20.0	27.5	0.8
CMPP AC275V/AC310V335K37.5S5	AC275/AC310	3.3	41.5	26.0	14.5	37.5	0.8
CMPP AC275V/AC310V335K37.5S6	AC275/AC310	3.3	41.5	28.0	17.0	37.5	0.8
CMPP AC275V/AC310V395K27.5S5	AC275/AC310	3.9	31.0	28.0	19.0	27.5	0.8
CMPP AC275V/AC310V395K37.5S5	AC275/AC310	3.9	41.5	25.0	16.0	37.5	0.8
CMPP AC275V/AC310V475K27.5S5	AC275/AC310	4.7	31.0	30.5	20.0	27.5	1.0
CMPP AC275V/AC310V475K27.5S6	AC275/AC310	4.7	31.0	32.5	19.0	27.5	1.0
CMPP AC275V/AC310V475K37.5S5	AC275/AC310	4.7	41.5	29.0	15.5	37.5	1.0
CMPP AC275V/AC310V475K37.5S6	AC275/AC310	4.7	41.5	32.0	21.0	37.5	1.0
CMPP AC275V/AC310V565K27.5S5	AC275/AC310	5.6	31.0	34.5	21.0	27.5	1.0
CMPP AC275V/AC310V565K37.5S5	AC275/AC310	5.6	41.5	31.5	18.5	37.5	1.0
CMPP AC275V/AC310V565K37.5S6	AC275/AC310	5.6	41.5	36.5	22.5	37.5	1.0
CMPP AC275V/AC310V685K37.5S5	AC275/AC310	6.8	41.5	35.5	22.5	37.5	1.0
CMPP AC275V/AC310V685K37.5S6	AC275/AC310	6.8	41.5	35.5	25.0	37.5	1.0
CMPP AC275V/AC310V825K37.5S5	AC275/AC310	8.2	41.5	38.0	25.0	37.5	1.0
CMPP AC275V/AC310V825K37.5S6	AC275/AC310	8.2	41.5	38.0	27.5	37.5	1.0
CMPP AC275V/AC310V106K37.5S5	AC275/AC310	10	41.5	41.5	28.0	37.5	1.0
CMPP AC275V/AC310V106K37.5S6	AC275/AC310	10	41.5	43.0	31.0	37.5	1.0

DIMENSION(105°C CMPP)

[STYLE]



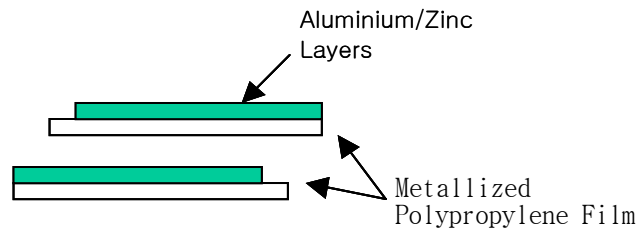
CODE NO. Designation

CMPP AC310V 472 K 7.5 S 5

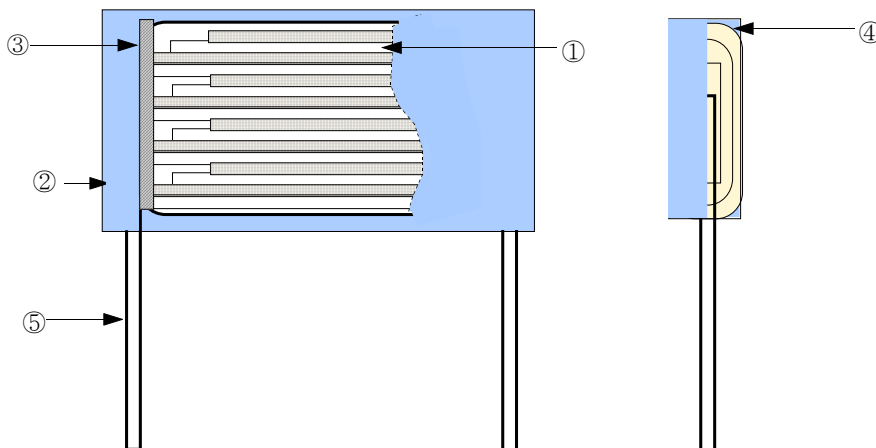
- [TYPE] 5 :Standard
1~4 : Smaller Size
6~9 : Bigger Size
- [Lead type] S :Standard Style
C :Cutting Style
- [Lead Pitch] : 7.5mm
- [Capacitance Tolerance]: K(±10%)
- [Capacitance Value] : 0.0047 μ F
- [Rated Voltage] :310VAC
- [Capacitor's type name]: CMPP
X2-FILM CAPACITOR

CONSTRUCTION				DR- AWN		CH- ECKED		APPR- OVED		1 1
DEPT	Q.C DEPT		ENACTMENT	15. 09. 22.		REVISION				
SUB	CMPP capacitor					REVISION				
						REVISION				

♠ Section View



♠ Construction



NO.	Type	Quantity	Material	Production process	Maker
1	Electrode	1	Metallized polypropylene film	winding	SUNG MOON / NUIN TEK / TORAY / SUNG HO
2	CASE	1	PLASTIC CASE (UL 94V-0)	CASE INSERTING	HONG RONG. SUNG HO - LG CHEMICAL
3	Solder (Pb-Free)	2	Tin-Zn Alloy	Spray	SHIN SAENG / SHUN DA SAM HWA / HENG WEI
4	FILLING	1	EPOXY RESIN (UL 94V-0)	EPOXY FILLING	GREEN STAR / E-TEK / DAE JOO
5	Lead - wire (Pb-Free)	2	LEAD-wire	spot-welding	IL KWANG / KISTRON(SAMATRON)

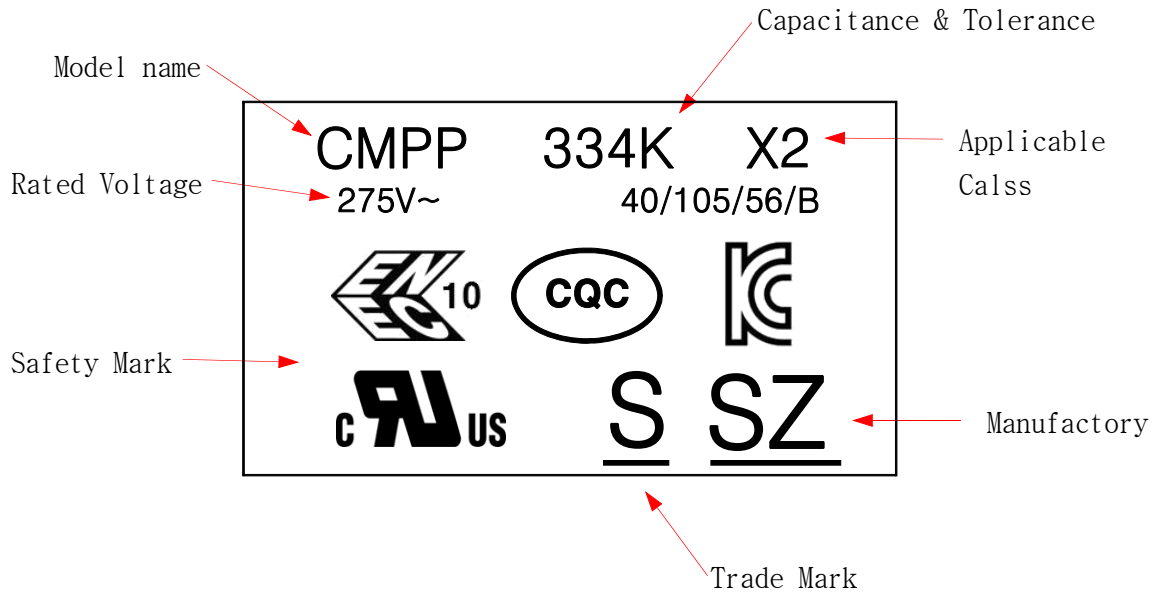
MARKING X₂-CAP (CMPP TYPE)

DRAWN

CHEC
-KED

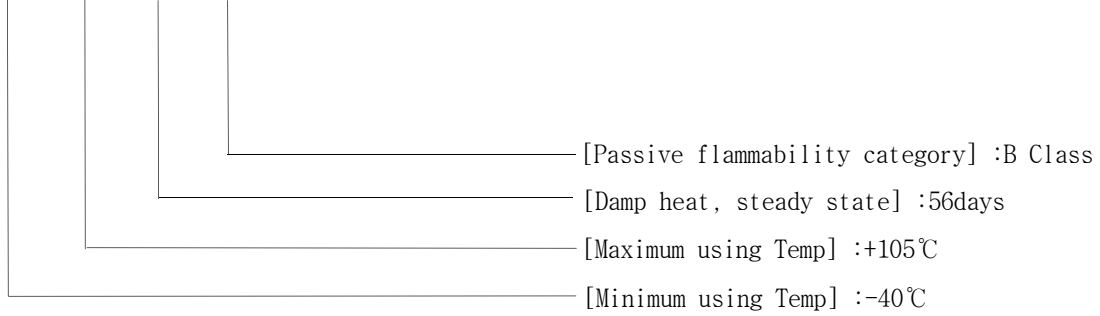
APPR
-OVED

1
1



Climatic Category, flammability category

40 / 105 / 56 / B






* Trade Mark

S - SUNG HO ELECTRONICS

* Manufactory Mark

SZ - ZHUHAI SUNG HO ELECTRONICS

SW - WEIHAI SUNG HO ELECTRONICS

DRAWN		CHECKED		APPROVED		1/1
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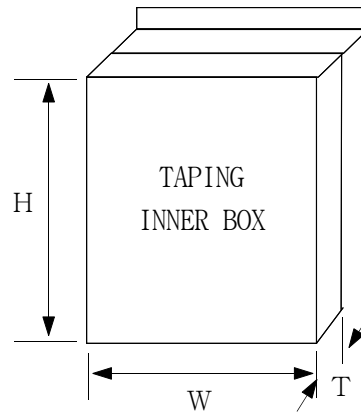
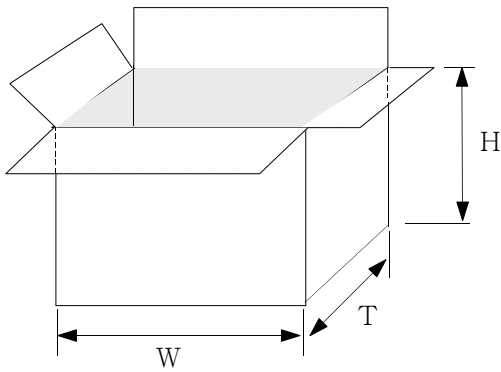
(DEPT)	Q .A	(ENACTMENT)	15. 09. 22.	REVISION 1	
SUB	PACKING STANDARD SPEC.			REVISION 2	
				REVISION 3	

1. SCOPE

This standard specifies film capacitors for packing standard.

2. PACKING

[BOX TYPE]



3. SIZE

3.1 BULK TYPE

ITEMS	SIZE	W(mm)	T(mm)	H(mm)
INNER BOX		350	200	275
OUT BOX		580	220	370