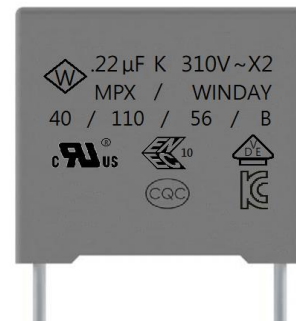
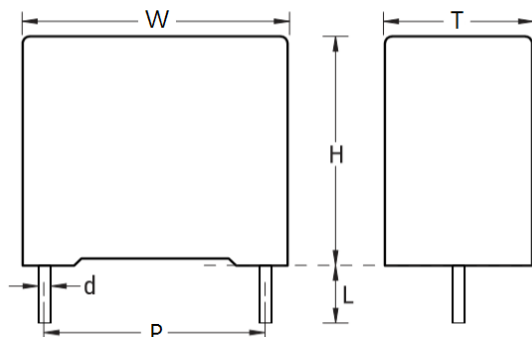


SMXV-AC310V series

■ Outline Drawing



■ Typical Applications

Widely used in high frequency, DC, AC and pulse circuits °

For across the line X2 applications

■ Features

Withstanding overvoltage stressing
Excellent passive flame resistant abilities

■ Construction

Dielectric: Metallized Polypropylene film

Electrodes: Metal vapor coating (Zn-Al synthetic)

Case: Flame-retardant PBT (UL94 V-0)

Epoxy Resin coating (UL 94 V-0)

Lead: Tinned copper clad steel wire

■ Safety Approvals

UL	UL60384-14	
ENEC(VDE)	IEC 60384-14:2013/AMD1:2016	
KC	K60384-14	
CQC	GB/T 6346. 14-2015	

■ Specifications

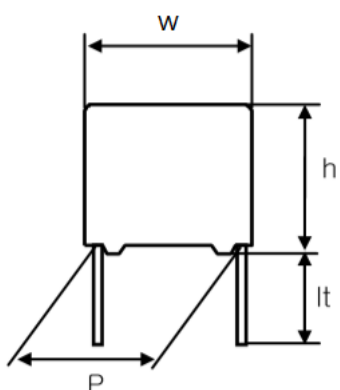
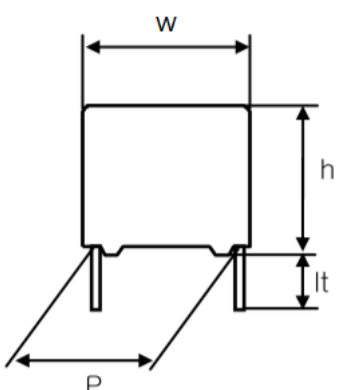
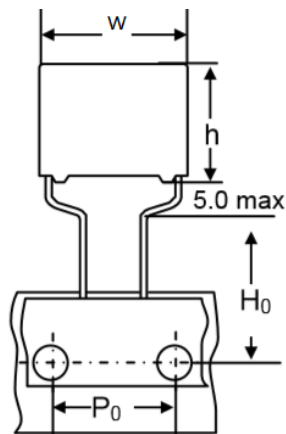
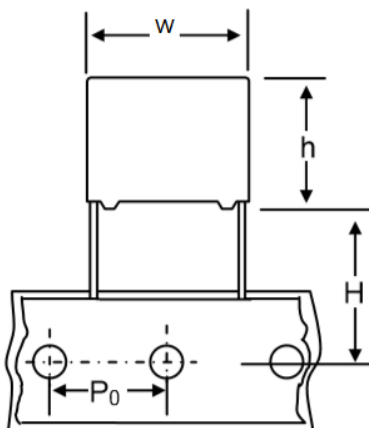
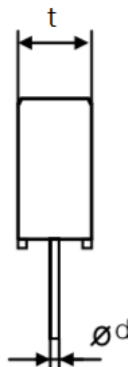
容量範圍 Capacitance Range		0.001μF (102) ~ 4.7μF (475)
容量誤差 Capacitance Tolerance		±10% (K)
額定電壓 Rated Voltage - 50/60Hz		310Vac
氣候類別 Climatic Category / Passive Flammability Class		40/110/56/B
工作溫度 Operating Temperature Range		-40°C~110°C
耐電壓 Voltage Proof	Between Terminals	4.3U _R (Vdc), 60s
	Between Terminal and Enclosure	U _R ×200%+1500Vac, 60sec.
絕緣電阻 Insulation Resistance		C _R ≤ 0.33μF IR ≥ 15,000MΩ
		C _R > 0.33μF IR ≥ 5,000s (20°C, 100V, 1min)
損耗因素 Dissipation Factor		0.1% Max, at 1KHz and 25°C

SMXV-AC310V series

■ Product code system

SMXV	G	104	K	D2X5	A	B	15	15
Type	Internal use	Capacitance	Tolerance	Case code	Voltage	Lead forming	Lead Pitch	Lead Length
SMXV= X2 310Vac	--	104 =100000pF =100nF =0.1μF	K=±10%	D2X5=18*12*6 D3XX=18*13.5*7.5 E4XX=26.5*19*10 F3XX=31*25*14	A=AC	Shown as Table I	08=7.5mm 10=10mm 15=15mm 23=22.5mm 28=27.5mm	04=3.5mm 15=15mm 20=20mm

■ Table I

Code	B (Straight 15mm)	K (Short)	U (Vertical Kink)
Lead Forming			
Code	T (Taping)	--	--
Lead Forming			--

SMXV-AC310V series

■ Dimensions (mm)

Pitch 7.5mm						
Cap. μF	W	H	T	P	d	Part number
0.0010	10	9	4	7.5	0.6	SMXVI102KB3LTA*08**
0.0022	10	9	4	7.5	0.6	SMXVI222KB3LTA*08**
0.0033	10	9	4	7.5	0.6	SMXVF332KB3LTA*08**
0.0047	10	9	4	7.5	0.6	SMXVJ472KB3LTA*08**
0.0068	10	9	4	7.5	0.6	SMXVI682KB3LTA*08**
0.010	10	9	4	7.5	0.6	SMXVI103KB3LTA*08**
0.022	10	10	5	7.5	0.6	SMXVH223KB7LTA*08**
0.033	10	12	6	7.5	0.6	SMXVI333KB5LTA*08**
0.047	10	12	6	7.5	0.6	SMXVG473KB5LTA*08**
0.068	10	12	6	7.5	0.6	SMXVG683KB5LTA*08**
0.1	10	12	6	7.5	0.6	SMXVF104KB5LTA*08**

Pitch 10mm						
Cap. μF	W	H	T	P	d	Part number
0.0010	13	9	4	10	0.6	SMXVJ102KC1XXA*10**
0.0010	13	11	5	10	0.6	SMXVJ102KC2X1A*10**
0.0022	13	9	4	10	0.6	SMXVI222KC1XXA*10**
0.0022	13	11	5	10	0.6	SMXVJ222KC2X1A*10**
0.0033	13	9	4	10	0.6	SMXVJ332KC1XXA*10**
0.0033	13	11	5	10	0.6	SMXVJ332KC2X1A*10**
0.0047	13	9	4	10	0.6	SMXVJ472KC1XXA*10**
0.0047	13	11	5	10	0.6	SMXVJ472KC2X1A*10**
0.0068	13	9	4	10	0.6	SMXVI682KC1XXA*10**
0.0068	13	11	5	10	0.6	SMXVI682KC2X1A*10**
0.010	13	9	4	10	0.6	SMXVI103KC1XXA*10**
0.010	13	11	5	10	0.6	SMXVJ103KC2X1A*10**
0.022	13	9	4	10	0.6	SMXVH223KC1XXA*10**
0.022	13	11	5	10	0.6	SMXVI223KC2X1A*10**
0.033	13	9	4	10	0.6	SMXVG333KC1XXA*10**
0.033	13	11	5	10	0.6	SMXVH333KC2X1A*10**

Pitch 10mm						
Cap. μF	W	H	T	P	d	Part number
0.047	13	9	4	10	0.6	SMXVF473KC1XXA*10**
0.047	13	11	5	10	0.6	SMXVG473KC2X1A*10**
0.068	13	11	5	10	0.6	SMXVG683KC2X1A*10**
0.068	13	12	6	10	0.6	SMXVG683KC3XXA*10**
0.10	13	11	5	10	0.6	SMXVF104KC2X1A*10**
0.10	13	12	6	10	0.6	SMXVG104KC3XXA*10**
0.15	13	12	6	10	0.6	SMXVF154KC3XXA*10**
0.15	13	14	8	10	0.6	SMXVG154KC5LTA*10**
0.22	13	12	6	10	0.6	SMXVE224KC3XXA*10**
0.22	13	14	8	10	0.6	SMXVF224KC5LTA*10**
0.33	13	14	8	10	0.6	SMXVE334KC5LTA*10**
0.33	12.5	16.5	10.5	10	0.6	SMXVF334KC9XXA*10**
0.47	12.5	16.5	10.5	10	0.6	SMXVF474KC9XXA*10**

Pitch 15mm						
Cap. μF	W	H	T	P	d	Part number
0.010	18	11	5	15	0.8	SMXVJ103KD1XXA*15**
0.022	18	11	5	15	0.8	SMXVJ223KD1XXA*15**
0.033	18	11	5	15	0.8	SMXVI333KD1XXA*15**
0.047	18	11	5	15	0.8	SMXVI473KD1XXA*15**
0.068	18	11	5	15	0.8	SMXVH683KD1XXA*15**
0.10	18	11	5	15	0.8	SMXVG104KD1XXA*15**
0.10	18	12	6	15	0.8	SMXVG104KD2X5A*15**
0.15	18	11	5	15	0.8	SMXVF154KD1XXA*15**
0.15	18	12	6	15	0.8	SMXVG154KD2XXA*15**
0.22	18	12	6	15	0.8	SMXVF224KD2XXA*15**
0.22	18	13.5	7.5	15	0.8	SMXVG224KD3X5A*15**
0.22	18	14.5	8.5	15	0.8	SMXVG224KD4X5A*15**
0.33	18	13.5	7.5	15	0.8	SMXVF334KD3XXA*15**
0.33	18	14.5	8.5	15	0.8	SMXVG334KD4XXA*15**
0.33	18	15.5	9.5	15	0.8	SMXVG334KD5XXA*15**

SMXV-AC310V series

■ Dimensions (mm)

Pitch 15mm						
Cap. μF	W	H	T	P	d	Part number
0.47	18	14.5	8.5	15	0.8	SMXVF474KD4XXA*15**
0.47	18	15.5	9.5	15	0.8	SMXVG474KD5XXA*15**
0.47	18	19	10.8	15	0.8	SMXVG474KD7XXA*15**
0.68	18	15.5	9.5	15	0.8	SMXVF684KD5XXA*15**
0.68	18	19	10.8	15	0.8	SMXVG684KD7XXA*15**
0.82	18	19	10.8	15	0.8	SMXVF824KD7XXA*15**
1.0	17.3	19.2	11.2	15	0.8	SMXVF105KD8XXA*15**

Pitch 22.5mm						
Cap. μF	W	H	T	P	d	Part number
0.22	26.5	15	6	22.5	0.8	SMXVH224KE1XXA*23**
0.22	26.5	16.5	7	22.5	0.8	SMXVH224KE2XXA*23**
0.33	26.5	16.5	7	22.5	0.8	SMXVH334KE2XXA*23**
0.33	26.5	17	8.5	22.5	0.8	SMXVH334KE3X5A*23**
0.47	26.5	15	6	22.5	0.8	SMXVF474KE1XXA*23**
0.47	26.5	16.5	7	22.5	0.8	SMXVG474KE2XXA*23**
0.47	26.5	17	8.5	22.5	0.8	SMXVG474KE3X5A*23**
0.47	26.5	19	10	22.5	0.8	SMXVH474KE4X5A*23**
0.68	26.5	16.5	7	22.5	0.8	SMXVF684KE2XXA*23**
0.68	26.5	17	8.5	22.5	0.8	SMXVG684KE3XXA*23**
0.68	26.5	19	10	22.5	0.8	SMXVH684KE4XXA*23**
0.82	26.5	19	10	22.5	0.8	SMXVG824KE4XXA*23**
0.82	26	21.5	12	22.5	0.8	SMXVH824KE6XXA*23**
1.0	26.5	17	8.5	22.5	0.8	SMXVF105KE3XXA*23**
1.0	26.5	19	10	22.5	0.8	SMXVG105KE4XXA*23**
1.0	26	21.5	12	22.5	0.8	SMXVH105KE6XXA*23**
1.2	26.5	19	10	22.5	0.8	SMXVF125KE4XXA*23**
1.2	26	21.5	12	22.5	0.8	SMXVG125KE6XXA*23**
1.5	26.5	19	10	22.5	0.8	SMXVF155KE4XXA*23**
1.5	26	20	11	22.5	0.8	SMXVF155KE5XXA*23**

Pitch 22.5mm						
Cap. μF	W	H	T	P	d	Part number
1.5	26	21.5	12	22.5	0.8	SMXVF155KE6XXA*23**
1.5	26.5	23	13	22.5	0.8	SMXVG155KE7XXA*23**
1.8	26	21.5	12	22.5	0.8	SMXVF185KE6XXA*23**
1.8	26	25	15	22.5	0.8	SMXVG185KE24LA*23**
2.2	26.5	23	13	22.5	0.8	SMXVF225KE7XXA*23**
2.2	26	25	15	22.5	0.8	SMXVG225KE24LA*23**

Pitch 27.5mm						
Cap. μF	W	H	T	P	d	Part number
0.47	31	16	10	27.5	0.8	SMXVI474KF15XA*28**
0.47	31.5	19.5	10.8	27.5	0.8	SMXVI474KF1X5A*28**
0.68	31.5	19.5	10.8	27.5	0.8	SMXVH684KF1X5A*28**
0.82	31.5	19.5	10.8	27.5	0.8	SMXVH824KF1X5A*28**
0.82	31.5	21.5	13	27.5	0.8	SMXVH824KF2X5A*28**
1.0	31.5	19.5	10.8	27.5	0.8	SMXVG105KF1X5A*28**
1.0	31.5	21.6	13	27.5	0.8	SMXVH105KF2XXA*28**
1.0	31	25	14	27.5	0.8	SMXVI105KF3XXA*28**
1.2	31.5	19.5	10.8	27.5	0.8	SMXVG125KF1X5A*28**
1.2	31.5	21.6	13	27.5	0.8	SMXVH125KF2XXA*28**
1.5	31.5	19.5	10.8	27.5	0.8	SMXVG155KF1XXA*28**
1.5	31.5	21.6	13	27.5	0.8	SMXVG155KF2XXA*28**
1.5	31	25	14	27.5	0.8	SMXVH155KF3XXA*28**
1.8	31	25	14	27.5	0.8	SMXVG185KF3XXA*28**
2.0	31.5	19.5	10.8	27.5	0.8	SMXVF205KF1XXA*28**
2.0	31.5	21.6	13	27.5	0.8	SMXVF205KF2XXA*28**
2.0	31	25	14	27.5	0.8	SMXVG205KF3XXA*28**
2.2	31.5	21.6	13	27.5	0.8	SMXVF225KF2XXA*28**
2.2	31	25	14	27.5	0.8	SMXVG225KF3XXA*28**
2.2	31	29	15.5	27.5	0.8	SMXVH225KF31LA*28**
2.2	32	28	18	27.5	0.8	SMXVH225KF13XA*28**

SMXV-AC310V series

■ Dimensions (mm)

Pitch 27.5mm						
Cap. μF	W	H	T	P	d	Part number
2.5	31	25	14	27.5	0.8	SMXVG255KF3XXA*28**
3.0	31	25	14	27.5	0.8	SMXVF305KF3XXA*28**
3.3	32	28	18	27.5	0.8	SMXVG335KF13XA*28**
3.3	31	31	22	27.5	0.8	SMXVH335KF8XXA*28**
4.0	31	25	14	27.5	0.8	SMXVF405KF3XXA*28**
4.7	32	28	18	27.5	0.8	SMXVF475KF13XA*28**
4.7	31	31	22	27.5	0.8	SMXVG475KF8XXA*28**

Pitch 37.5mm						
Cap. μF	W	H	T	P	d	Part number
4.7	41	28.5	16	37.5	0.8	SMXVF475KT855A*38**
4.7	41.5	35.5	22.5	37.5	0.8	SMXVH475KJ20LA*38**

* = Lead forming

** = Lead length

SMXV-AC310V series

■ Specifications (IEC 60384-14)

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test
電容量 Capacitance	在規定公差內 Within the tolerance specified	1KHz, 1Vrms Max. at 25°C
損耗因素 Dissipation Factor	0.001 (0.1%) Max.	1KHz, 1Vrms Max. at 25°C
耐電壓 Voltage proof	應無異常 Shall be no abnormality	引線間 Between terminals 4.3U _R (Vdc) Test of 60sec.
		引線與外盒間 Between terminal and enclosure U _R ×200%+1500Vac, 60sec.
絕緣電阻 Insulation resistance	C _R ≤ 0.33μF IR ≥ 15,000MΩ C _R > 0.33μF IR ≥ 5,000s	100±15Vdc, 60sec / 20°C
引出端強度試驗 Robustness of terminations	無斷線，電容器無損壞 No wire breakage and no damage of capacitor	端子強度 Tense Strength of Terminal 負載重量 Load Force : 1.0 Kg 保持時間 Holding Time : 10 ± 1sec
		抗彎強度 Bending Strength of Terminal 負載重量 Load Force : 0.5 Kg 彎曲時間 Bending Time : 4 x 90°
耐焊接熱 Resistance to soldering heat	(1) Appearance : No visible damage (2) ΔC/C : ≤ ±5% of the initial value	焊接溫度 Solder temperature: 260±5°C 焊接時間 Solder time: 5±0.5sec
可焊性 Solderability	表面鍍錫 95% 95% of the surface tinning	焊接溫度 Solder temperature: 260±5°C 焊接時間 Solder time: 2±0.5sec
溫度快速變化 Rapid change of temperature	應目視檢查電容器，並無可見損壞 The capacitors shall be visually examined and there shall be no visible damage.	下限溫度 Lower category temperature: -40°C 上限溫度 Upper category temperature: 110°C 循環次數 Number of cycles: 5 持續時間 Duration t1 = 30 min
振動 Vibration	應目視檢查電容器，並無可見損壞 The capacitors shall be visually examined and there shall be no visible damage	頻率範圍 Frequency range: 10~55Hz 振幅軸向 Course: X、Y、Z (axis) 持續時間 2h / axis (6h in total) 位移振幅 Displacement amplitude: 0.75mm

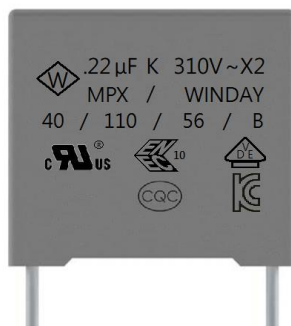
SMXV-AC310V series

■ Specifications (IEC 60384-14)

試驗項目 Test items	性能要求 Performance requirements	試驗條件 Conditions of test
氣候序列 Climatic sequence	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 5\%$ of the initial value (3) DF ($\tan \delta$) : ≤ 0.008 of increased value (4) IR : $\geq 50\%$ of the applicable limits (5) Voltage proof : Normal	乾熱 Dry Heat 上限溫度 Upper Temperature: 110°C 持續時間 Lower Duration: 16Hrs
		寒冷 Cold 下限溫度 Temperature: -40°C 持續時間 Duration: 2Hrs
濕熱穩態 Damp Heat Steady State	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 5\%$ of the Initial value (3) DF ($\tan \delta$) : ≤ 0.008 of increased value (4) IR : $\geq 50\%$ of the applicable limits (5) Voltage proof : Normal	溫度 +40°C, 濕度 93%, 56 天 +40°C and 93% RH, 56 days
充放電 Charge and discharge	(1) Appearance : No visible damage (2) $\Delta C/C : \leq \pm 10\%$ of the initial value (3) DF ($\tan \delta$) : ≤ 0.008 of increased value (4) IR : $\geq 50\%$ of the applicable limits	實驗電壓 Test voltage : $\sqrt{2} \times U_R$ VAC 50 Hz 充放電 Charge and discharge: 0.5sec/time 重複次數 Repeated for 10000 cycles
耐久性 Endurance	(1) Appearance : No Visible Damage (2) $\Delta C/C : \leq \pm 10\%$ of the initial value (3) DF ($\tan \delta$) : ≤ 0.008 of increased value (4) IR : $\geq 50\%$ of the applicable limits	額定電壓 x 125%, 每小時上升至 1000VAC 0.1 秒, 上限額定溫度 1000 小時 $1.25 \times U_R$ VAC 50 Hz, once every hour increase to 1,000VAC for 0.1 second, 1,000 hours at upper rated temperature

■ Mark (Example)

SMXV For 310Vac



1. Capacitance : .22μF indicates 0.22μF or 220nF	2. Capacitors Tolerance : K= $\pm 10\%$
3. Rated Voltage: 310Vac	4. Capacitors class, such as X2
5. Type of the capacitors MPX	6. Trademark WINDAY indicating
7. Climatic Category : 40/100/21 and 40/110/56	8. Recognized approval mark

APPROVAL SHEETS FOR SAFETY STANDARD OF TYPE MPX-X2

Approval marks	Standards	Certificate	Climatic Category	Rated Cap.	Rated Voltage
	UL 60384-14	E302125	40/100/21/B	0.001 ~ 4.7μF	275Vac
			40/110/56/B		310Vac
	EN60384-14:09	E302125	40/100/21/B	0.001 ~ 4.7μF	275Vac
			40/110/56/B		310Vac
	IEC 60384-14:2013	40030283	40/100/21/B	0.001 ~ 4.7μF	275Vac
			40/110/56/B		310Vac
	GB/T6346. 14-2015	CQC13001096493	40/100/21/B	0.001 ~ 4.7μF	275Vac
			40/110/56/B		310Vac
	KC60384-14	SU03034-12001C SU03034-12002C SU03034-12003D SU03034-12004D SU03034-17001A	40/100/21/C	0.001 ~ 4.7μF	275Vac
			40/110/56/B		310Vac

SMXV-AC310V series

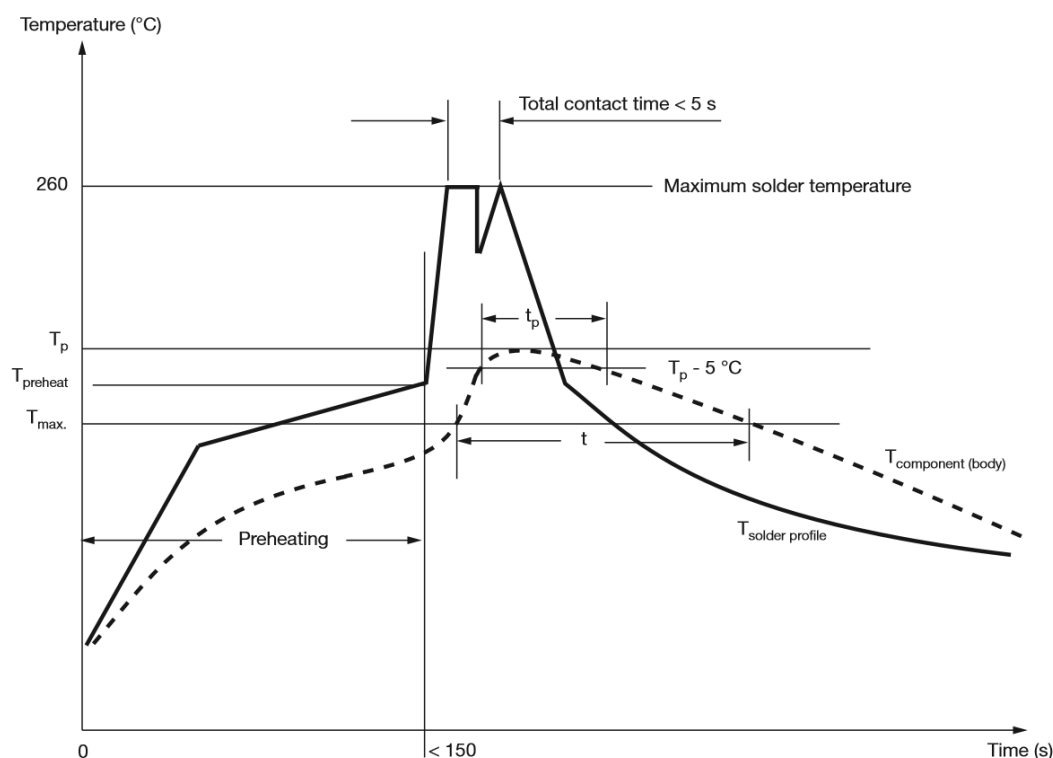
■ Soldering Guidelines for Film Capacitors

WDC recommends that users observe the following guidelines for soldering our film capacitors. Adherence to these recommendations will help to safeguard product specifications and reliability while preventing damage to the capacitors during soldering.

SOLDERING GUIDELINES AND RECOMMENDED WAVE SOLDERING PROFILE

With regard to the resistance to soldering heat and the solderability, our products comply with "IEC 60384-1" and the additional type specifications. The recommended wave soldering profile for our leaded components is defined as follows:

■ Wave Soldering Recommendations



T_p : Peak temperature of the component body (top)

$T_{max.}$: Maximum application temperature of the component

The PSL (Process Sensitivity Level) is classified according JEDEC standard J-STD-075 "Classification of Non-IC Electronic Components for Assembly Processes" and summarized in following tables per product family and pitch size of the component:

SERIES	PRODUCT PITCH SIZE							
	5 mm	7.5 mm	10 mm	15 mm	22.5 mm	27.5 mm	31.5 mm	37.5 mm
X2	--	(3),(5)	(2),(5)	(1),(6)	(1),(6)	(1),(6)	(1),(6)	(1),(6)

(1) No risk

During soldering: $T_p \leq 110^\circ\text{C}$, $t_p \leq 20\text{ s}$, $t \leq 30\text{ s}$

(2) Risk for parameter change if PSL is not strictly followed

(5) Temperature is measured at the body top and must be kept as follows:

(3) Risk for product damage if PSL is not strictly followed

During preheating: $T_{max.} \leq 110^\circ\text{C}$

(4) Temperature is measured at the body top and must be kept as follows:

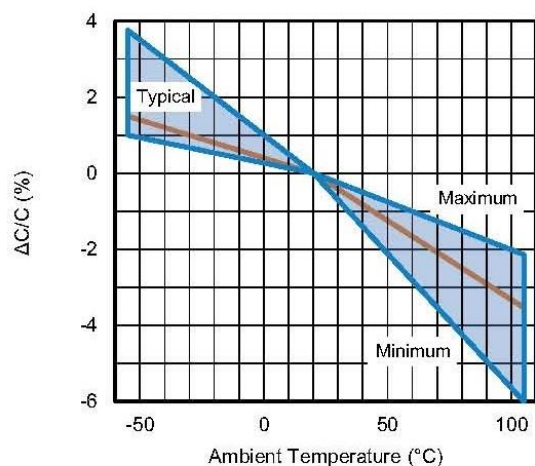
During soldering: $T_p \leq 120^\circ\text{C}$, $t_p \leq 20\text{ s}$, $t \leq 30\text{ s}$

During preheating: $T_{max.} \leq 100^\circ\text{C}$

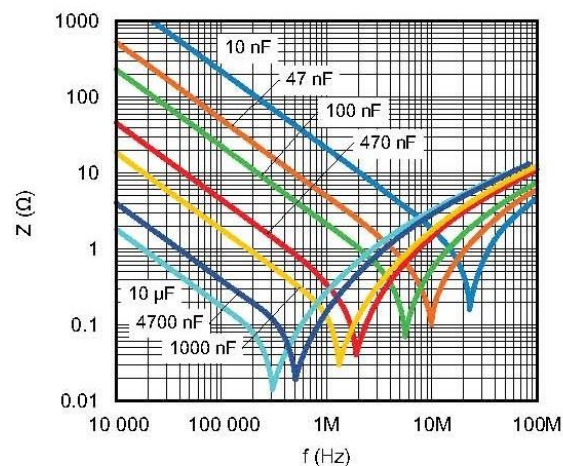
(6) The component has a preheat limitation of 150 °C

SMXV-AC310V series

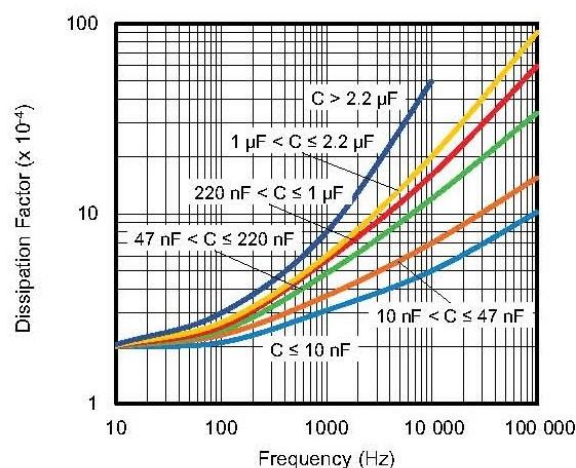
■ Characteristics



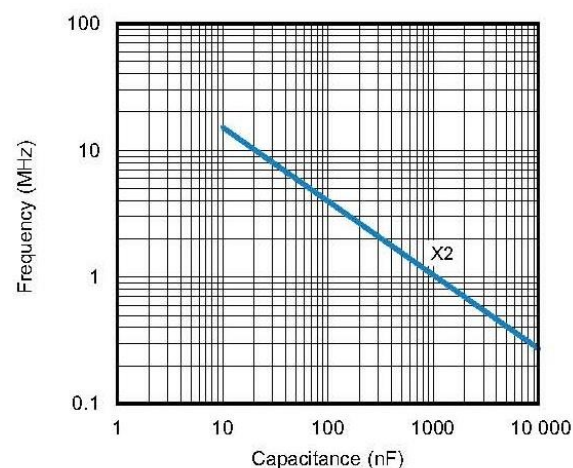
Capacitance as a function of ambient temperature (typical curve)



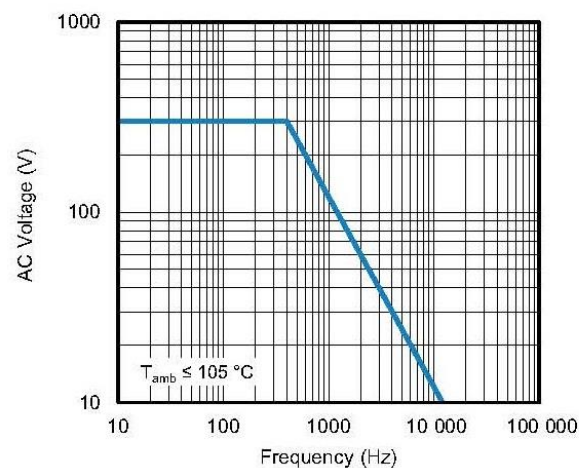
Impedance as a function of frequency (typical curve)



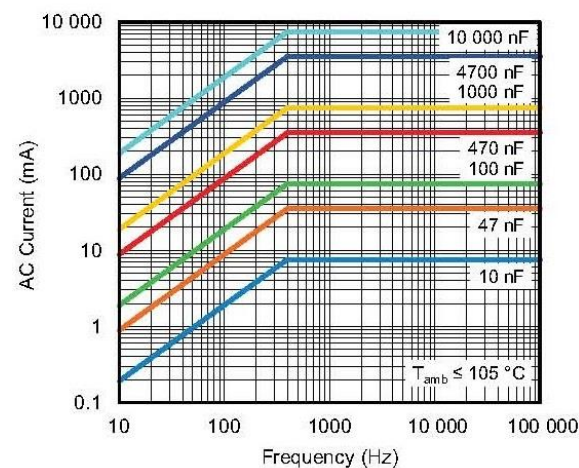
Tangent of loss angle as a function of frequency (typical curve)



Resonant frequency as a function of capacitance (typical curve)



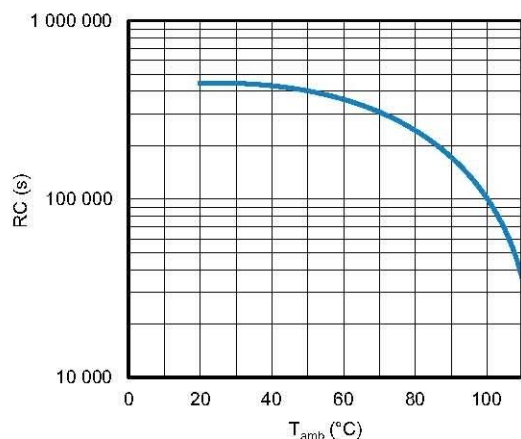
Max. RMS voltage as a function of frequency



Max. RMS current as a function of frequency

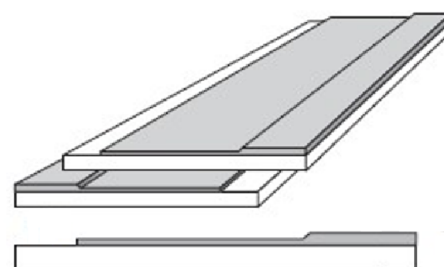
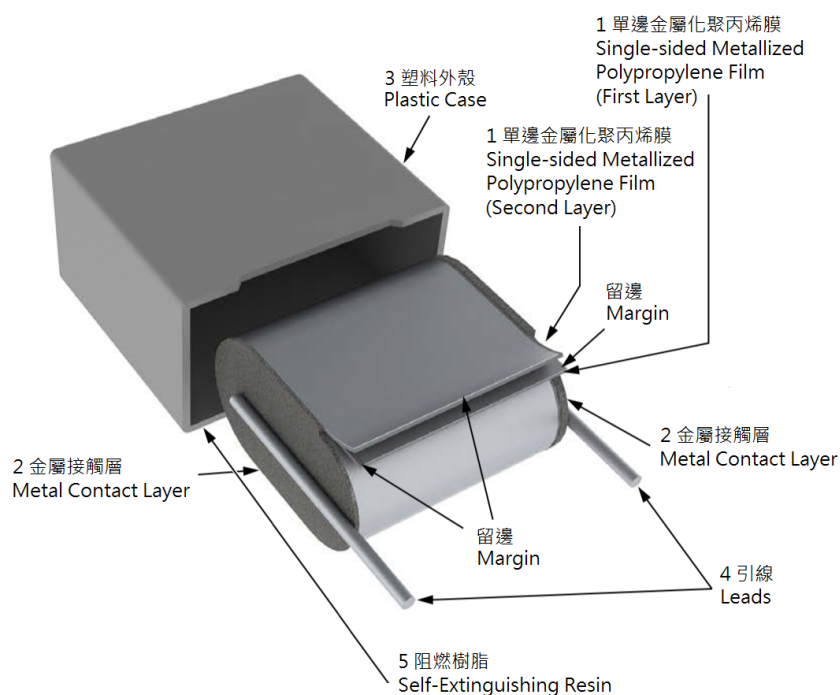
SMXV-AC310V series

■ Characteristics



Insulation resistance as a function of ambient temperature

■ Construction



金屬蒸鍍塗層 (鋅鋁合成)
Metal vapor coating (Zn-Al synthetic)

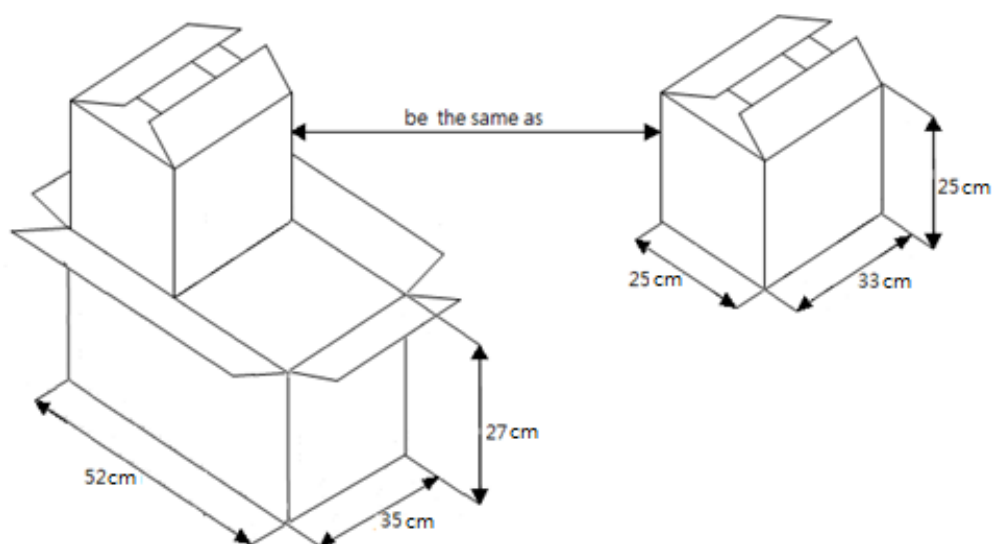
■ Storage conditions and duration

Packaged capacitors should be kept in clean, ventilated, dry coffers, not near the heat source, not subject to direct sunlight, is strictly prohibited and chemical reagents, acid and harmful gas storage together.

Capacitor at a temperature within the range 20 ~ 25 °C, humidity less than 50% of the state of storage for one year.

SMXV-AC310V series

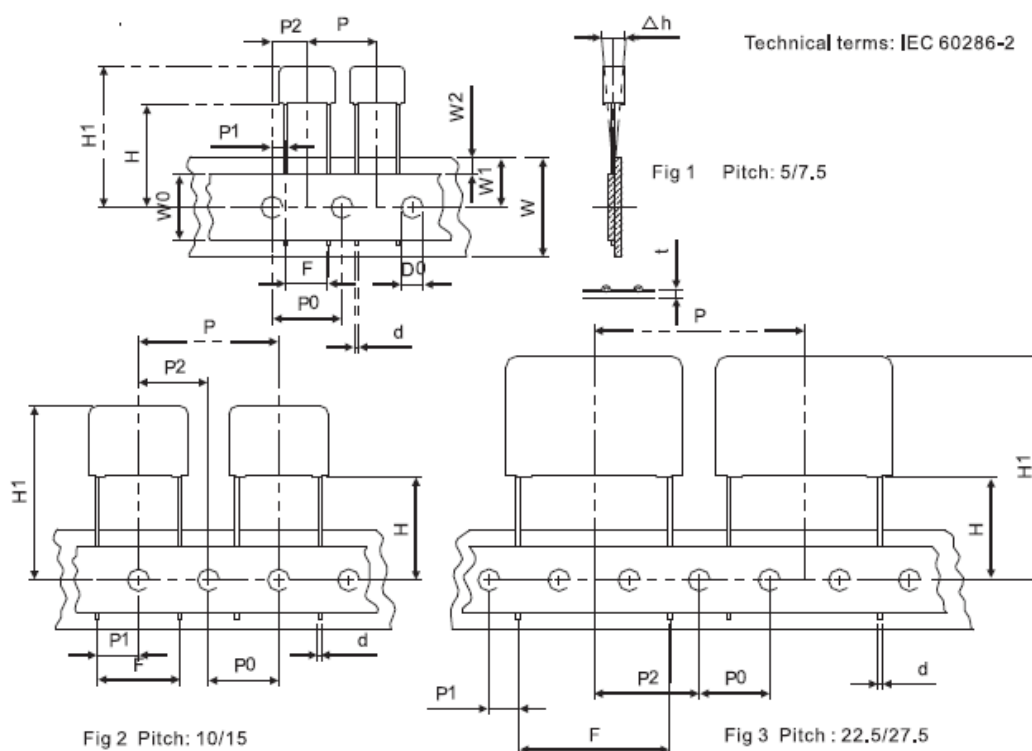
■ Packaging



Size (mm)	Pcs / Bag	Pcs / Inner carton (L33:cm XH:25cm X T:25cm)	Pcs / Out box (L52:cm XH:27cm X T:35cm)
18 * 15.5 * 9.5	300	3000	6000

SMXV-AC310V series

Table II



Description	Symbol	Pitch:5	Pitch: 7.5	Pitch:10	Pitch:15	Pitch:22.5	Pitch:27.5
Carrier tape width	W	18+/-0.5	18+/-0.5	18+/-0.5	18+/-0.5	18+/-0.5	18+/-0.5
Hold down tape width	W0	9.5min	9.5min	9.5min	9.5min	9.5min	9.5min
Hole position	W1	9.0+/-0.5	9.0+/-0.5	9.0+/-0.5	9.0+/-0.5	9.0+/-0.5	9.0+/-0.5
Hold down tape position	W2	0-3.0	0-3.0	0-3.0	0-3.0	0-3.0	0-3.0
Feed hole diameter	D0	4.0+/-0.2	4.0+/-0.2	4.0+/-0.2	4.0+/-0.2	4.0+/-0.2	4.0+/-0.2
Taping pitch	P	12.7+/-1.0	12.7+/-1.0	25.4+/-1.0	25.4+/-1.0	38.1+/-1.0	38.1+/-1.0
Feed hole pitch	P0	12.7+/-0.2	12.7+/-0.2	12.7+/-0.2	12.7+/-0.2	12.7+/-0.2	12.7+/-0.2
Centering of the lead wire	P1	3.85+/-1.3	2.6+/-0.7	7.7+/-0.7	5.2+/-0.7	7.8+/-0.7	5.3+/-0.7
Centering of the body	P2	6.35+/-0.3	6.35+/-0.3	12.7+/-1.3	12.7+/-1.3	19.05+/-1.3	19.05+/-1.3
Height of component from tape center	H ^Δ	16.5+/-0.3	16.5+/-0.5	16.5+/-0.5	16.5+/-0.5	16.5+/-0.5	16.5+/-0.5
		18.5+/-0.5	18.5+/-0.5	18.5+/-0.5	18.5+/-0.5	18.5+/-0.5	18.5+/-0.5
Top edge of component	H1	32.2max	32.2max	39.0max	39.0max	44.0max	44.0max
Lead spacing(pitch)	F	5.0+0.8-0.2	7.5+0.8-0.2	10.0+0.8-0.2	15.0+0.8-0.2	22.5+0.8-0.2	27.5+0.8-0.2
Lead wire diameter	d	0.5+/-0.05	0.6+/-0.05	0.6+/-0.05	0.8+/-0.05	0.8+/-0.05	0.8+/-0.05
Component alignment	Δh	0+/-2.0	0+/-2.0	0+/-2.0	0+/-2.0	0+/-3.0	0+/-3.0
Tape thickness	t	0.7+/-0.2	0.7+/-0.2	0.7+/-0.2	0.7+/-0.2	0.7+/-0.2	0.7+/-0.2