XH SERIES ▪ ULTRA FLAT, 1.4MM HEIGHT MULTILAYER TYPE

KEY FEATURES

LOW PROFILE

- **MLPC - MULTILAYER CONDUCTIVE POLYMER** ▪ SMD type
- Endurance: 105°C ▪ 2 000 hours
- Ultra-low ESR and highest ripple current
- No voltage derating
- No dry-out effect guarantees extremely long life

HF Halogen Free · MSL 3 · RoHS & REACH COMPLIANT

SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	V_R	2 ~ 25V DC
Surge Voltage	V_S	$V_S = 1.25 \cdot V_R$ (2 ~ 16VDC); $V_S = 1.15 \cdot V_R$ (20 ~ 25VDC)
Capacitance Range	C_R	22 ~ 330µF
Cap. Tolerance	ΔC	±20% (120Hz ▪ 20°C)
Leakage Current (20°C ▪ V_R applied)	I_{LEAK}	≤ $0.1 \cdot C_R \cdot V_R$ (µA) [≤ 6.3VDC]; ≤ $0.3 \cdot C_R \cdot V_R$ (µA) [> 6.3VDC] After 2 minutes
Dissipation Factor % (20°C ▪ 120Hz)	tanδ	Not to exceed the values shown in standard ratings
Equivalent Series Resistance (20°C ▪ 100kHz)	ESR	Not to exceed the values shown in standard ratings

Lifetime Test			
Endurance 105°C (V_R applied)	Test	**2 000 hours**	
	$\triangle C/C_R$	Within ±20% of the initial value	
	tanδ	< 2 times of the initial limit	
	ESR	Less than 200% of the specified value	
	I_{Leak}	< 3 times of the initial limit	≤ 6.3 VDC
		Within the initial limit	> 6.3 VDC
Moisture Resistance stored at 60°C (RH 90 ~ 95%)	Test	**500 hours**	
	$\triangle C/C_R$	Within +70 to -20% of the initial value	
	tanδ	< 2 times of the initial limit	
	ESR	Less than 200% of the specified value	
	I_{Leak}	< 3 times of the initial limit	≤ 6.3 VDC
		Within the initial limit	> 6.3 VDC

MULTIPLIER K_I for RIPPLE CURRENT vs. SURFACE TEMPERATURE T_S

Temperature T_S		$T_S \leq 45°C$	$45°C \leq T_S < 85°C$	$85°C \leq T_S \leq 105°C$
K_I	V_R: 2V ~ 6.3V	1	0.7	0.25
K_I	V_R: 8V ~ 25V	1	0.8	0.5

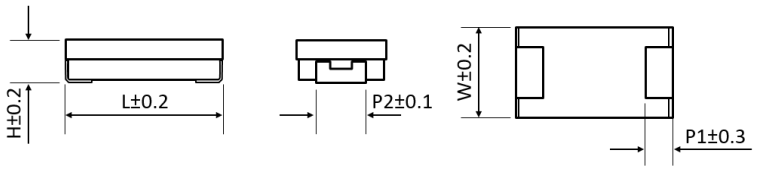
For further information please contact sales@capxon.org

STANDARD RATINGS

Part number shows blister tape on plastic reel

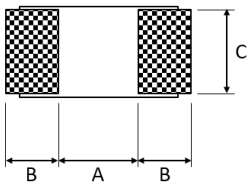
V_R (V)	C_R (µF)	L (mm)	W (mm)	H (mm)	I_{LEAK} (µA, 2min)	tanδ +20°C ▪ 120Hz (%)	Max. ESR +20°C ▪ 100kHz (mΩ)	Max. I_R +45°C ▪ 100kHz (mA rms)	CapXon Part Number
2	330	7.3	4.3	1.4	66	6	9	6300	XH331M0027014P090
							6	7500	XH331M0027014P060
2.5	330	7.3	4.3	1.4	83	6	9	6300	XH331M2R57014P090
							6	7500	XH331M2R57014P060
6.3	68	7.3	4.3	1.4	43	6	15	5100	XH680M6R37014P150
							12	5600	XH680M6R37014P120
	100				63	6	15	5100	XH101M6R37014P150
							12	5600	XH101M6R37014P120
16	47	7.3	4.3	1.4	225	6	40	3200	XH470M0167014P400
25	22	7.3	4.3	1.4	165	6	40	3200	XH220M0257014P400

DIMENSIONS ▪ All dimensions in mm



L	W	H	P1	P2
7.3	4.3	1.4	1.3	2.4

PAD LAYOUT ▪ All dimensions in mm



A	B	C
3.8	2.5	4

PRECAUTIONS, GUIDELINES AND PACKAGING INFORMATION

Unless otherwise agreed in individual specifications, all products are subject to our “General Precautions and Guidelines” as well as our “Packaging Information”. Please refer to the following links in the table.

General Precautions & Guidelines	Packaging Information	3D Models	Reliability Tests

For further information please contact sales@capxon.org

GROUP CHART

Flat Multilayer Solutions

XA	→	XH
105°C ▪ 2 000h		105°C ▪ 2 000h
1.9mm Height		1.4mm Height