SH SERIES ▪ 7MM, LONG LIFE 85°C TYPE

KEY FEATURES

LOW HEIGHT LONG LIFE

- **ALUMINUM ELECTROLYTIC CAPACITOR** ▪ THT type
- Endurance: 85°C ▪ 2 000 hours
- Optimized for high density insertion
- Low height ▪ 7mm
- Miniaturized for space critical applications

RoHS & REACH COMPLIANT

SPECIFICATIONS

Items		Performance Characteristics								
Operating Temperature Range		-40 ~ +85°C								
Rated Voltage Range	V_R	4 ~ 63V DC								
Surge Voltage	V_S	$V_S = 1.15 \cdot V_R$								
Capacitance Range	C_R	0.1 ~ 470µF								
Cap. Tolerance	ΔC	±20% (120Hz ▪ 20°C)								
Leakage Current (20°C ▪ V_R applied)	I_{LEAK}	≤ $0.01 \cdot C_R \cdot V_R$ or 3µA, whichever is greater ▪ After 1 minute [I_{LEAK} (µA) ; C_R (µF) ; V_R (V)]								
Dissipation Factor % (20°C ▪ 120Hz)	tanδ	V_R (V DC)	4	6.3	10	16	25	35	50	63
		tanδ (%)	25	22	20	16	14	12	10	9
Low Temperature Characteristics at 120Hz	Z ratio max.	V_R (V DC)	4	6.3	10	16	25	35	50	63
		Z-25°C/Z+20°C	7	4	3	2	2	2	2	2
		Z-40°C/Z+20°C	15	8	6	4	4	3	3	3

Lifetime Test			
Endurance 85°C (V_R applied)	Test	**2 000 hours**	
	△C/C_R	≤ ±20% of initial measured value	6.3 ~ 63 V
		≤ ±30% of initial measured value	4V
	tanδ	≤ 200% of initial specified value	
	I_{Leak}	≤ the initial specified value	
Shelf Life 85°C (V_R = 0)	Test	**1 000 hours**	
	△C/C_R	≤ ±20% of initial measured value	6.3 ~ 63 V
		≤ ±30% of initial measured value	4V
	tanδ	≤ 200% of initial specified value	
	I_{Leak}	≤ the initial specified value	
	Before measurement: Restore capacitor to 20°C, apply V_R for 30 min according JIS-C-5101-4		

MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

C_R (µF) / Frequency (Hz)	50/60	100/120	400	1k	10k	50k - 100k
$C_R \leq 10$	0.8	1	1.3	1.45	1.65	1.7
$10 < C_R \leq 100$	0.8	1	1.23	1.36	1.48	1.53
$100 < C_R \leq 470$	0.8	1	1.16	1.25	1.35	1.38

CAPXON 更多规格书点击这里查看 服务热线：0755-88852201 +VX:13410723853

STANDARD RATINGS

Part number shows bulk version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_R ▪ Max. Ripple Current +85°C ▪ 120Hz (mA rms)	CapXon Part Number
4	22	4	7	23	SH220M004B070A
	33	4	7	26	SH330M004B070A
	47	4	7	35	SH470M004B070A
	68	5	7	55	SH680M004C070A
	100	5	7	58	SH101M004C070A
	220	6.3	7	65	SH221M004E070A
	330	6.3	7	90	SH331M004E070A
	470	8	7	120	SH471M004F070A
6.3	22	4	7	31	SH220M6R3B070A
	33	4	7	32	SH330M6R3B070A
	33	5	7	35	SH330M6R3C070A
	47	4	7	40	SH470M6R3B070A
	47	5	7	47	SH470M6R3C070A
	68	5	7	55	SH680M6R3C070A
	100	5	7	65	SH101M6R3C070A
	100	6.3	7	75	SH101M6R3E070A
	220	6.3	7	70	SH221M6R3E070A
	220	8	7	90	SH221M6R3F070A
	330	8	7	120	SH331M6R3F070A
10	15	4	7	28	SH150M010B070A
	22	4	7	35	SH220M010B070A
	33	4	7	40	SH330M010B070A
	33	5	7	45	SH330M010C070A
	47	4	7	47	SH470M010B070A
	47	5	7	51	SH470M010C070A
	68	5	7	60	SH680M010C070A
	68	6.3	7	68	SH680M010E070A
	100	5	7	80	SH101M010C070A
	100	6.3	7	90	SH101M010E070A
	220	6.3	7	105	SH221M010E070A
	220	8	7	125	SH221M010F070A
16	6.8	4	7	20	SH6R8M016B070A
	10	4	7	30	SH100M016B070A
	15	4	7	32	SH150M016B070A
	22	4	7	37	SH220M016B070A
	22	5	7	42	SH220M016C070A
	33	4	7	45	SH330M016B070A
	33	5	7	50	SH330M016C070A
	47	5	7	61	SH470M016C070A
	47	6.3	7	67	SH470M016E070A
	68	6.3	7	72	SH680M016E070A
	100	6.3	7	95	SH101M016E070A
	100	8	7	105	SH101M016F070A

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V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_R ▪ Max. Ripple Current +85°C ▪ 120Hz (mA rms)	CapXon Part Number
25	4.7	4	7	17	SH4R7M025B070A
	6.8	4	7	21	SH6R8M025B070A
	10	4	7	30	SH100M025B070A
	10	5	7	33	SH100M025C070A
	15	5	7	38	SH150M025C070A
	22	5	7	45	SH220M025C070A
	22	6.3	7	48	SH220M025E070A
	33	5	7	52	SH330M025C070A
	33	6.3	7	60	SH330M025E070A
	47	6.3	7	68	SH470M025E070A
	47	8	7	72	SH470M025F070A
	68	6.3	7	75	SH680M025E070A
	100	8	7	115	SH101M025F070A
35	4.7	4	7	22	SH4R7M035B070A
	6.8	4	7	24	SH6R8M035B070A
	6.8	5	7	28	SH6R8M035C070A
	10	4	7	30	SH100M035B070A
	10	5	7	35	SH100M035C070A
	15	5	7	38	SH150M035C070A
	15	6.3	7	45	SH150M035E070A
	22	5	7	50	SH220M035C070A
	22	6.3	7	58	SH220M035E070A
	33	6.3	7	54	SH330M035E070A
	33	8	7	68	SH330M035F070A
	47	8	7	80	SH470M035F070A
	68	8	7	85	SH680M035F070A
50	0.1	4	7	1.5	SH0R1M050B070A
	0.15	4	7	1.8	SHR15M050B070A
	0.22	4	7	2.5	SHR22M050B070A
	0.33	4	7	3.5	SHR33M050B070A
	0.47	4	7	5	SHR47M050B070A
	0.68	4	7	7	SHR68M050B070A
	1	4	7	10	SH010M050B070A
	1.5	4	7	13	SH1R5M050B070A
	2.2	4	7	19	SH2R2M050B070A
	3.3	4	7	24	SH3R3M050B070A
	4.7	4	7	27	SH4R7M050B070A
	4.7	5	7	29	SH4R7M050C070A
	6.8	5	7	32	SH6R8M050C070A
	6.8	6.3	7	33	SH6R8M050E070A
	10	5	7	35	SH100M050C070A
	10	6.3	7	38	SH100M050E070A
	15	6.3	7	52	SH150M050E070A

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Part number shows bulk version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_R ▪ Max. Ripple Current +85°C ▪ 120Hz (mA rms)	CapXon Part Number
50	22	6.3	7	60	SH220M050E070A
	22	8	7	63	SH220M050F070A
	33	8	7	78	SH330M050F070A
63	0.1	4	7	1.5	SH0R1M063B070A
	0.15	4	7	1.8	SHR15M063B070A
	0.22	4	7	2.5	SHR22M063B070A
	0.33	4	7	3.5	SHR33M063B070A
	0.47	4	7	6	SHR47M063B070A
	0.68	4	7	7	SHR68M063B070A
	1	4	7	12	SH010M063B070A
	1.5	4	7	14	SH1R5M063B070A
	2.2	4	7	19	SH2R2M063B070A
	3.3	5	7	25	SH3R3M063C070A
	4.7	5	7	29	SH4R7M063C070A
	4.7	6.3	7	33	SH4R7M063E070A
	6.8	6.3	7	35	SH6R8M063E070A
	10	6.3	7	40	SH100M063E070A
	15	8	7	55	SH150M063F070A
	22	8	7	65	SH220M063F070A

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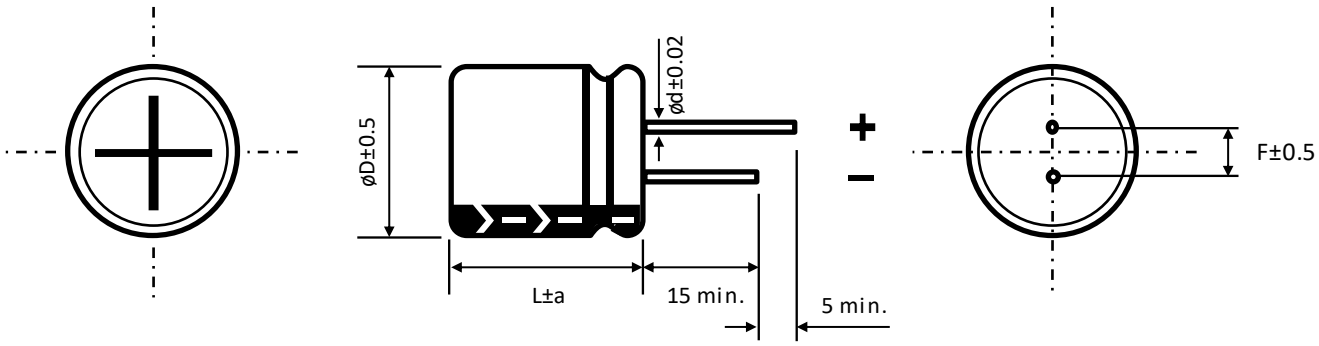
DIMENSIONS ▪ All dimensions in mm



ø D	4	5	6.3	8
F	1.5	2	2.5	3.5
ø d	0.45	0.45	0.5	0.5
a	1	1	1	1

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PRECAUTIONS, GUIDELINES AND PACKAGING INFORMATON

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

DISCLAIMER

All product related data (e.g. specification, statements and general information) are subject to change without any notice. It is necessary that the customer observes all product related technical / application information and handling instructions.

CapXon products are designed and manufactured according to severe quality and safety standards. Under no circumstance, CapXon warrants that any CapXon product is suitable for the purposes intended for your application, even CapXon knows the application. It is customer's duty and obligation to check and make sure that CapXon products are suitable for the purposes intended and select the correct and proper CapXon product. Customers are requested to perform a sufficient validation and reliability evaluation to assure needed safety level and reliability performance by suitable designs and to apply proper safeguards (e.g. redundancies, protective circuits).

Particular operating conditions (ambient temperature, ripple current, voltage, thermal resistance, etc.) as well as storage, production or assembly may affect the performance and the lifetime of the capacitor. Please consult CapXon for lifetime estimation, failure mode considerations or worst-case scenarios according to the product technology, product tolerances / deviations or change of the characteristics of the capacitor due to shipment, storage, handling, production and usage.

For aerospace or military application, life-saving, life-sustaining, safety critical applications or any application where failure may cause severe personal injury or death, please consult us before design-in the capacitor in your application.

Except for the written expressed warranties, CapXon does not impliedly, by assumption or whatever else, warrant, undertake, promise any other warranty or guaranty for any CapXon product.

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