

KY SERIES ■ SLIM SIZE 105°C TYPE

KEY FEATURES



- **ALUMINUM ELECTROLYTIC CAPACITOR** ■ THT type
- Endurance: 105°C ■ 2 000 hours
- Slim design for height limited applications
- High reliability
- High voltage version



SPECIFICATIONS

Items		Performance Characteristics					
Operating Temperature Range		-25 ~ +105°C					
Rated Voltage Range	V_R	250 ~ 450V DC					
Surge Voltage	V_S	$(V_R \leq 315V): V_S = 1.15 \cdot V_R$			$(V_R > 315V): V_S = 1.10 \cdot V_R$		
Capacitance Range	C_R	12 ~ 150µF					
Cap. Tolerance	ΔC	±20% (120Hz ■ 20°C)					
Leakage Current (20°C ■ V_R applied)	I_{LEAK}	$\leq 3 \cdot \sqrt{C_R \cdot V_R}$ ■ After 5 minutes [I_{LEAK} (µA) ; C_R (µF) ; V_R (V)]					
Dissipation Factor % (20°C - 120Hz)	tanδ	V_R (V DC)	250	350	400	420	450
		tanδ (%)	15	15	15	20	20
Low Temperature Characteristics at 120Hz	Z ratio max.	V_R (V DC)	250	350	400	420	450
		Z-25°C/Z+20°C	3	8	8	8	8
Lifetime Test							
Endurance 105°C (V_R & I_R applied)	Test	2 000 hours					
	$\Delta C/C_R$	≤ ±20% of initial measured value					
	tanδ	≤ 200% of initial specified value					
	I_{Leak}	≤ the initial specified value					
Shelf Life 105°C ($V_R = 0$)	Test	1 000 hours					
	$\Delta C/C_R$	≤ ±20% of initial measured value					
	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

V_R (V) / Frequency (Hz)	50/60	100/120	400	1k	100k
250 ~ 350	0.8	1	1.2	1.3	1.4
400 ~ 450	0.8	1	1.25	1.4	1.5

STANDARD RATINGS

Part number shows bulk version with straight leads

V_R (V)	C_R (μ F)	ϕ D (mm)	L (mm)	I_R - Max. Ripple Current +105°C - 120Hz (mA rms)	CapXon Part Number
250	22	8	30	200	KY220M250F300A
	27	8	30	220	KY270M250F300A
	33	8	30	240	KY330M250F300A
	39	8	35	270	KY390M250F350A
	47	8	40	330	KY470M250F400A
	56	10	35	380	KY560M250G350A
	68	10	35	435	KY680M250G350A
	82	10	40	500	KY820M250G400A
	100	10	45	585	KY101M250G450A
	120	13	35	620	KY121M250I350A
150	13	40	670	KY151M250I400A	
350	15	8	30	145	KY150M350F300A
	22	8	35	185	KY220M350F350A
	27	8	40	220	KY270M350F400A
	33	8	40	250	KY330M350F400A
	39	10	35	300	KY390M350G350A
	47	10	40	380	KY470M350G400A
	56	10	45	430	KY560M350G450A
	68	13	35	480	KY680M350I350A
	82	13	40	550	KY820M350I400A
	100	13	45	600	KY101M350I450A
400	15	8	30	170	KY150M400F300A
	22	8	35	220	KY220M400F350A
	27	8	40	255	KY270M400F400A
	27	10	30	255	KY270M400G300A
	33	8	45	280	KY330M400F450A
	33	10	30	280	KY330M400G300A
	39	8	50	330	KY390M400F500A
	39	10	35	330	KY390M400G350A
	47	10	40	430	KY470M400G400A
	47	13	30	430	KY470M400I300A
	56	10	50	480	KY560M400G500A
	56	13	30	450	KY560M400I300A
	68	10	55	550	KY680M400G550A
	68	13	35	520	KY680M400I350A
	68	13	40	550	KY680M400I400A
	82	13	40	580	KY820M400I400A
	100	13	45	620	KY101M400I450A
	100	13	50	650	KY101M400I500A
120	13	55	750	KY121M400I550A	
420	15	8	30	150	KY150M420F300A
	22	8	35	195	KY220M420F350A
	27	8	40	230	KY270M420F400A
	33	8	50	300	KY330M420F500A
	33	10	35	290	KY330M420G350A

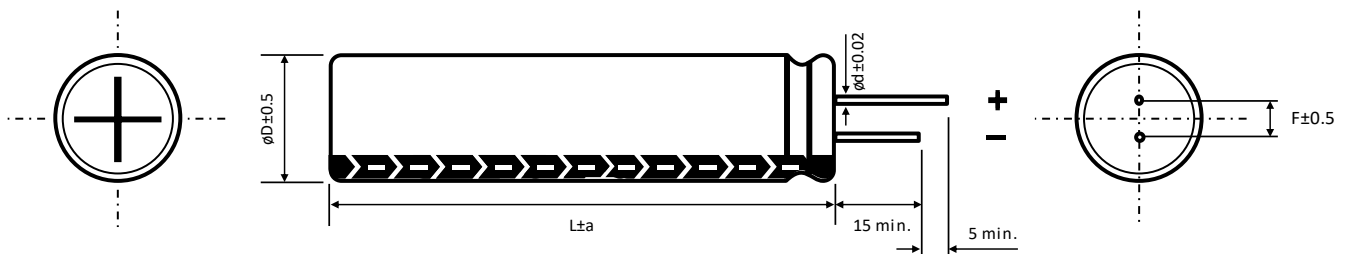
See "PACKAGING INFORMATION" to taped or formed products.

STANDARD RATINGS

Part number shows bulk version with straight leads

V_R (V)	C_R (μ F)	ϕD (mm)	L (mm)	I_R - Max. Ripple Current +105°C - 120Hz (mA rms)	CapXon Part Number
420	39	10	40	315	KY390M420G400A
	39	13	30	315	KY390M420I300A
	47	10	40	360	KY470M420G400A
	47	13	30	360	KY470M420I300A
	56	10	50	440	KY560M420G500A
	56	13	30	400	KY560M420I300A
	68	13	35	470	KY680M420I350A
	82	13	40	550	KY820M420I400A
100	13	50	620	KY101M420I500A	
450	12	8	30	135	KY120M450F300A
	15	8	35	150	KY150M450F350A
	22	8	40	195	KY220M450F400A
	22	10	30	195	KY220M450G300A
	27	8	45	230	KY270M450F450A
	27	10	30	220	KY270M450G300A
	33	10	35	255	KY330M450G350A
	33	10	40	280	KY330M450G400A
	39	10	40	300	KY390M450G400A
	39	10	45	315	KY390M450G450A
	39	10	50	330	KY390M450G500A
	47	10	50	390	KY470M450G500A
	56	13	35	420	KY560M450I350A
	56	13	40	450	KY560M450I400A
	68	13	40	520	KY680M450I400A
	68	13	45	550	KY680M450I450A
82	13	45	570	KY820M450I450A	





See "PACKAGING INFORMATION" to taped or formed products.

DIMENSIONS ▪ All dimensions in mm


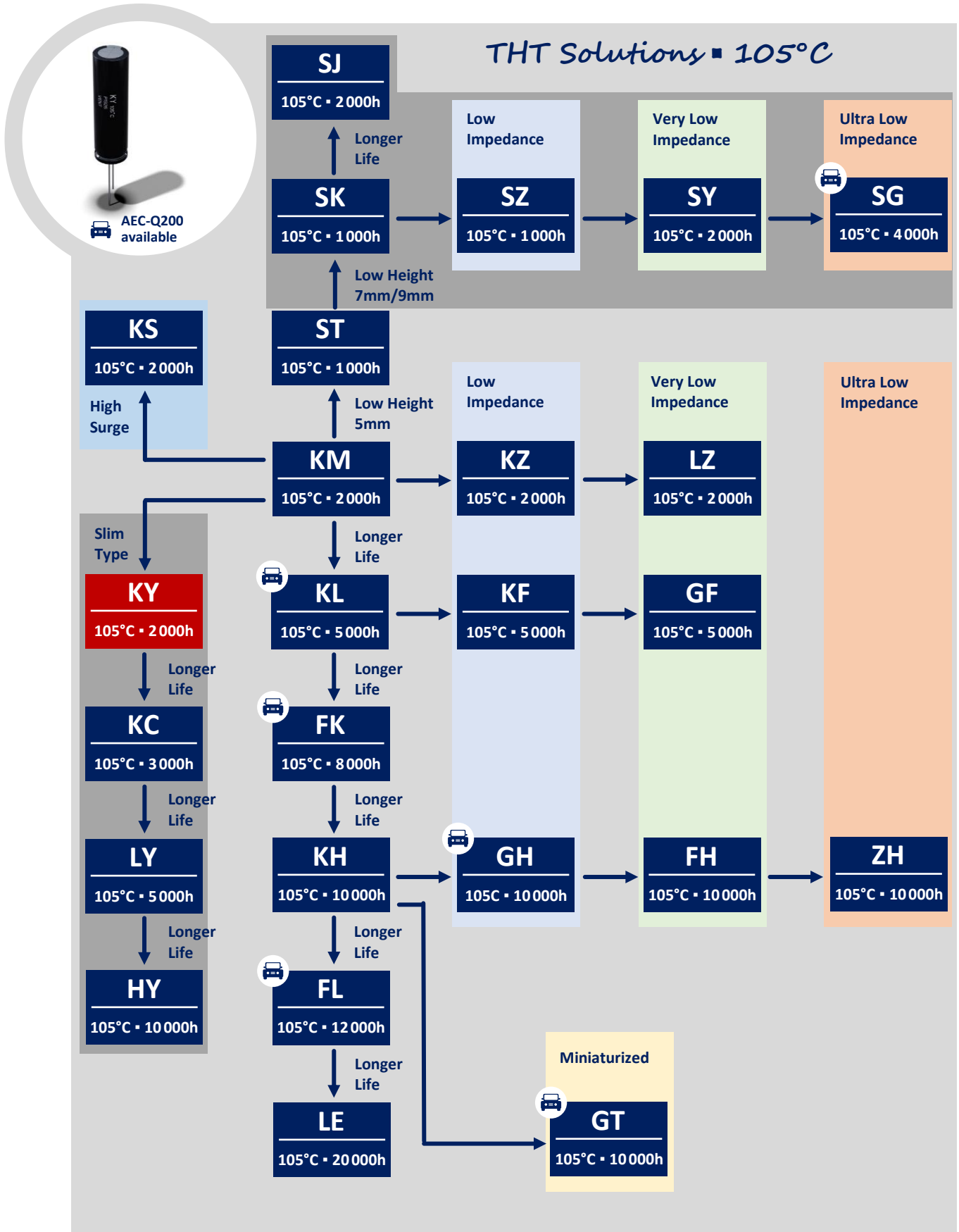
ϕD	8	10	13
F	3.5	5	5
ϕd	0.5	0.6	0.6
a	1.5	2	2

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.

			
<u>General Precautions & Guidelines</u>	<u>Packaging Information</u>	<u>3D Models</u>	<u>Reliability Tests</u>

GROUP CHART





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.

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