

### LY SERIES ■ LONG LIFE, SLIM SIZE 105°C TYPE

#### KEY FEATURES



- ALUMINUM ELECTROLYTIC CAPACITOR ■ THT type
- Endurance: 105°C ■ 5 000 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 ~ 150 $\mu$ F					
Cap. Tolerance	$\Delta C$	$\pm 20\%$ (120Hz ■ 20°C)					
Leakage Current (20°C ■ $V_R$ applied)	$I_{LEAK}$	$\leq \sqrt{3} \cdot C_R \cdot V_R$ ■ After 5 minutes [ $I_{LEAK}$ ( $\mu$ A) ; $C_R$ ( $\mu$ F) ; $V_R$ (V) ]					
Dissipation Factor % (20°C ■ 120Hz)	tan $\delta$	$V_R$ (V DC)	250	350	400	420	450
		tan $\delta$ (%)	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	<b>5 000 hours</b>					
	$\Delta C/C_R$	$\leq \pm 20\%$ of initial measured value					
	tan $\delta$	$\leq 200\%$ of initial specified value					
	$I_{Leak}$	$\leq$ the initial specified value					
Shelf Life 105°C ( $V_R = 0$ )	Test	<b>1 000 hours</b>					
	$\Delta C/C_R$	$\leq \pm 20\%$ of initial measured value					
	tan $\delta$	$\leq 200\%$ of initial specified value					
	$I_{Leak}$	$\leq$ 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 <sub>R</sub> (V)	C <sub>R</sub> (μF)	∅ D (mm)	L (mm)	I <sub>R</sub> - Max. Ripple Current +105°C - 120Hz (mA rms)	CapXon Part Number
250	22	8	30	130	LY220M250F300A
	27	8	30	150	LY270M250F300A
	33	8	35	170	LY330M250F350A
	39	8	40	200	LY390M250F400A
	47	8	45	220	LY470M250F450A
	56	10	35	260	LY560M250G350A
	56	10	40	300	LY560M250G400A
	68	10	40	350	LY680M250G400A
	82	10	45	480	LY820M250G450A
	100	10	50	550	LY101M250G500A
	120	13	40	570	LY121M250I400A
150	13	45	620	LY151M250I450A	
350	15	8	30	110	LY150M350F300A
	22	8	35	150	LY220M350F350A
	27	8	40	165	LY270M350F400A
	33	8	45	195	LY330M350F450A
	39	10	40	280	LY390M350G400A
	47	10	45	330	LY470M350G450A
	56	10	50	380	LY560M350G500A
	68	13	35	425	LY680M350I350A
	68	13	40	450	LY680M350I400A
	82	13	40	500	LY820M350I400A
	100	13	50	520	LY101M350I500A
400	15	8	30	120	LY150M400F300A
	22	8	35	160	LY220M400F350A
	27	8	40	195	LY270M400F400A
	27	10	30	195	LY270M400G300A
	33	8	45	250	LY330M400F450A
	33	10	30	250	LY330M400G300A
	39	8	50	280	LY390M400F500A
	39	10	40	300	LY390M400G400A
	47	10	45	350	LY470M400G450A
	47	13	30	330	LY470M400I300A
	56	10	50	400	LY560M400G500A
	56	13	30	380	LY560M400I300A
	56	13	35	420	LY560M400I350A
	68	13	35	440	LY680M400I350A
	68	13	40	460	LY680M400I400A
	82	13	45	520	LY820M400I450A
	100	13	50	580	LY101M400I500A
	120	13	60	680	LY121M400I600A
420	15	8	30	100	LY150M420F300A
	22	8	40	180	LY220M420F400A
	27	8	45	200	LY270M420F450A

See "PACKAGING INFORMATION" to taped or formed products.

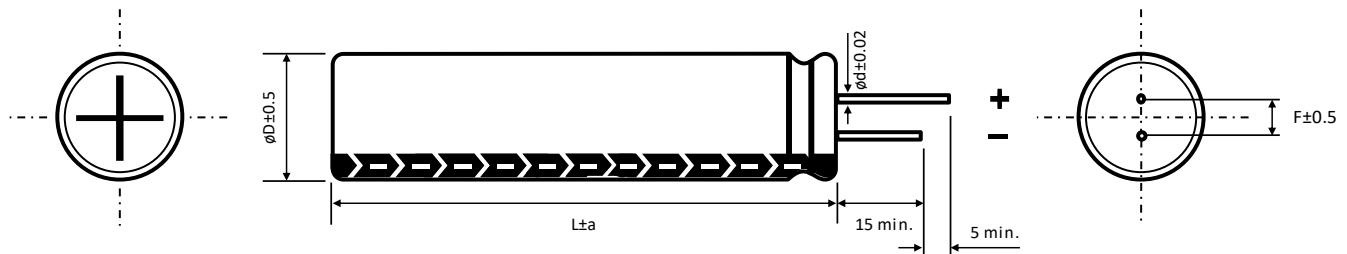
### STANDARD RATINGS

Part number shows bulk version with straight leads

$V_R$ (V)	$C_R$ ( $\mu$ F)	$\phi D$ (mm)	L (mm)	$I_R$ - Max. Ripple Current +105°C - 120Hz (mA rms)	CapXon Part Number
420	33	10	35	230	LY330M420G350A
	39	10	45	275	LY390M420G450A
	39	13	30	275	LY390M420I300A
	47	10	45	330	LY470M420G450A
	47	13	35	360	LY470M420I350A
	56	10	55	420	LY560M420G550A
	56	13	35	410	LY560M420I350A
	68	13	40	450	LY680M420I400A
	82	13	45	500	LY820M420I450A
	100	13	50	600	LY101M420I500A
450	12	8	30	110	LY120M450F300A
	15	8	35	120	LY150M450F350A
	22	8	45	160	LY220M450F450A
	22	10	30	150	LY220M450G300A
	27	8	50	190	LY270M450F500A
	27	10	35	180	LY270M450G350A
	33	10	40	220	LY330M450G400A
	33	10	45	235	LY330M450G450A
	33	10	50	250	LY330M450G500A
	39	10	45	260	LY390M450G450A
	39	10	50	290	LY390M450G500A
	39	13	35	290	LY390M450I350A
	47	10	55	350	LY470M450G550A
	47	13	35	350	LY470M450I350A
	56	13	35	400	LY560M450I350A
	56	13	40	425	LY560M450I400A
	68	13	45	470	LY680M450I450A
	68	13	50	500	LY680M450I500A
	82	13	50	530	LY820M450I500A

See "PACKAGING INFORMATION" to taped or formed products.




### DIMENSIONS - All dimensions in mm



$\phi D$	8	10	13
F	3.5	5	5
$\phi d$	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.

		
<a href="#">General Precautions &amp; Guidelines</a>	<a href="#">Packaging Information</a>	<a href="#">3D Models</a>

### 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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