

### YS SERIES ■ ECONOMY, LONG LIFE UP TO 10000 HOURS TYPE

#### KEY FEATURES



ECONOMY

- HYBRID CONDUCTIVE POLYMER • THT type
- Endurance: 105°C ■ 5 000 up to 10000 hours
- Low ESR and high ripple current
- Economy series for cost effective applications
- Lower leakage current than comparable solid polymer capacitors



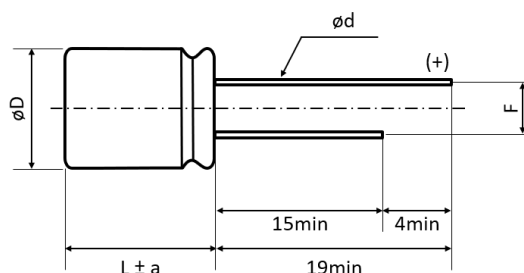
#### SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	$V_R$	16 ~ 100V DC
Surge Voltage	$V_S$	( $V_R \leq 100V$ ): $V_S = 1.25 \cdot V_R$
Capacitance Range	$C_R$	8.2 ~ 1500 $\mu$ F
Cap. Tolerance	$\Delta C$	$\pm 20\%$ (120Hz • 20°C)
Leakage Current (20°C • $V_R$ applied)	$I_{LEAK}$	Not to exceed the values shown in standard ratings After 2 minutes
Dissipation Factor % (20°C • 120Hz)	$\tan \delta$	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 ( $V_R$ & $I_R$ applied)	Test	10000 hours
		$\geq \phi D 8 \cdot \leq 100V$
		5000 hours
		$\leq \phi D 6.3 \cdot \leq 100V DC$
	$\Delta C/C_R$	Within $\pm 30\%$ of the initial value
	$\tan \delta$	Less than 200% of the specified value
	ESR	Less than 200% of the specified value
	$I_{Leak}$	Less than the specified value

#### DIMENSIONS ■ All dimensions in mm



$\phi D$	L	$\phi D \pm 0.5$	a	F $\pm 0.5$	$\phi d \pm 0.05$
6.3	8	6.3	1	2.5	0.6
8	9	8	1.5	3.5	0.6
8	11.5	8	1.5	3.5	0.6
10	10	10	1.5	5	0.6
10	12.5	10	1.5	5	0.8
10	18	10	2	5	0.8

## STANDARD RATINGS

V <sub>R</sub> (V)	C <sub>R</sub> (μF)	ø D (mm)	L (mm)	I <sub>LEAK</sub> (μA, 2min)	tanδ +20°C • 120Hz (%)	Max. ESR +20°C • 100kHz (mΩ)	I <sub>R</sub> • Max. Ripple Current +105°C • 100kHz (mA rms)	CapXon Part Number
16	120	6.3	8	19.2	16	40	1500	YS121M016E080PTC
	270	8	9	43.2	16	26	2000	YS271M016F090PTD
	330	8	11.5	52.8	16	23	2350	YS331M016F115PTD
	470	10	10	75.2	16	21	2600	YS471M016G100PTA
	560	10	12.5	89.6	16	15	3000	YS561M016G125PTA
	1500	10	18	240.0	16	12	5000	YS152M016G180PTA
25	68	6.3	8	17.0	16	45	1400	YS680M025E080PTC
	150	8	9	37.5	16	27	1900	YS151M025F090PTD
	220	8	11.5	55.0	16	24	2250	YS221M025F115PTD
	270	10	10	67.5	16	22	2530	YS271M025G100PTA
	330	10	12.5	82.5	16	16	2900	YS331M025G125PTA
	1000	10	18	250.0	16	12	5000	YS102M025G180PTA
35	47	6.3	8	16.5	16	60	1300	YS470M035E080PTC
	100	8	9	35.0	16	30	1800	YS101M035F090PTD
	150	8	11.5	52.5	16	25	2100	YS151M035F115PTD
	150	10	10	52.5	16	23	2470	YS151M035G100PTA
	220	10	12.5	77.0	16	17	2830	YS221M035G125PTA
	680	10	18	238.0	16	14	4600	YS681M035G180PTA
40	27	6.3	8	10.8	16	70	1250	YS270M040E080PTC
	56	8	9	22.4	16	32	1750	YS560M040F090PTD
	82	8	11.5	32.8	16	27	2000	YS820M040F115PTD
	100	10	10	40.0	16	24	2400	YS101M040G100PTA
	120	10	10	48.0	16	18	2750	YS121M040G100PTA
	180	10	12.5	72.0	16	18	3000	YS181M040G125PTA
50	15	6.3	8	7.5	16	80	1200	YS150M050E080PTC
	33	8	9	16.5	16	35	1670	YS330M050F090PTD
	47	8	11.5	23.5	16	30	1900	YS470M050F115PTD
	56	10	10	28.0	16	25	2320	YS560M050G100PTA
	82	10	12.5	41.0	16	19	2650	YS820M050G125PTA
	220	10	18	110.0	16	15	4350	YS221M050G180PTA
63	10	6.3	8	6.3	16	100	1060	YS100M063E080PTC
	22	8	9	13.9	16	40	1560	YS220M063F090PTD
	27	8	11.5	17.0	16	35	1750	YS270M063F115PTD
	33	10	10	20.8	16	30	2100	YS330M063G100PTA
	47	10	10	29.6	16	30	2100	YS470M063G100PTA
	56	10	12.5	35.3	16	22	2400	YS560M063G125PTA
	150	10	18	94.5	16	18	4000	YS151M063G180PTA
80	8.2	8	9	6.6	16	90	1050	YS8R2M080F115PTD
	15	8	11.5	12.0	16	70	1400	YS150M080F115PTD
	12	10	10	9.6	16	70	1600	YS120M080G100PTA
	15	10	10	12.0	16	70	1600	YS150M080G100PTA
	18	10	12.5	14.4	16	50	1830	YS180M080G125PTA

Part number shows taped version with straight leads and Ammo Pack packaging.

See "PACKAGING INFORMATION" for further lead treatment options.

## STANDARD RATINGS

$V_R$ (V)	$C_R$ ( $\mu$ F)	$\phi$ D (mm)	L (mm)	$I_{LEAK}$ ( $\mu$ A, 2min)	$\tan\delta$ +20°C • 120Hz (%)	Max. ESR +20°C • 100kHz (m $\Omega$ )	$I_R$ • Max. Ripple Current +105°C • 100kHz (mA rms)	CapXon Part Number
100	8.2	8	9	8.2	16	100	1000	YS8R2M100F090PTD
	10	8	11.5	10.0	16	80	1300	YS100M100F115PTD
	10	10	10	10.0	16	80	1450	YS100M100G100PTA
	12	10	10	12.0	16	80	1450	YS120M100G100PTA
	15	10	12.5	15.0	16	60	1660	YS150M100G125PTA
	47	10	12.5	47.0	16	60	1660	YS470M100G125PTA

Part number shows taped version with straight leads and Ammo Pack packaging.

See “PACKAGING INFORMATION” for further lead treatment options.

## MULTIPLIER $K_f$ for RIPPLE CURRENT vs. FREQUENCY

Frequency (Hz)	100 ≤ Freq. < 120	120 ≤ Freq. < 200	200 ≤ Freq. < 300	300 ≤ Freq. < 500
Coefficient $K_f$	0.10	0.10	0.10	0.15

Frequency (Hz)	500 ≤ Freq. < 1k	1k ≤ Freq. < 2k	2k ≤ Freq. < 3k	3k ≤ Freq. < 5k
Coefficient $K_f$	0.20	0.30	0.40	0.45

Frequency (Hz)	5k ≤ Freq. < 10k	10k ≤ Freq. < 15k	15k ≤ Freq. < 20k	20k ≤ Freq. < 40k
Coefficient $K_f$	0.50	0.60	0.65	0.70

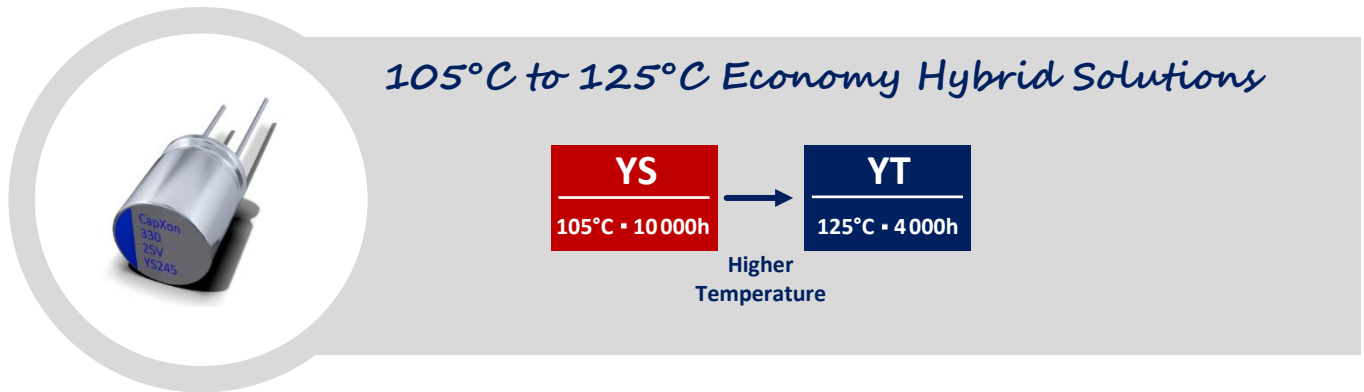
Frequency (Hz)	40k ≤ Freq. < 50k	50k ≤ Freq. < 100k	100k ≤ Freq. < 500k	500k ≤ Freq. < 1M
Coefficient $K_f$	0.80	0.85	1.00	1.05

## 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>	<a href="#">Reliability Tests</a>

### 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.

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.

For further information, please visit our website [www.capxongroup.com](http://www.capxongroup.com) or contact CapXon directly.