

### AS SERIES ■ LONG LIFE UP TO 10000 HOURS

#### KEY FEATURES



- HYBRID CONDUCTIVE POLYMER • THT type
- Endurance: 105°C ■ 2 000 up to 10 000 hours
- Low ESR and high ripple current
- Superior electrical stability over application lifetime
- AEC-Q200 version available

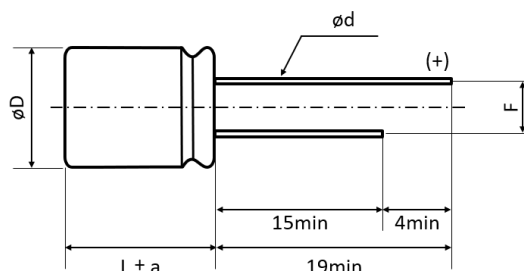


#### SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	$V_R$	16 ~ 400V DC
Surge Voltage	$V_S$	( $V_R \leq 100V$ ): $V_S = 1.25 \cdot V_R$ ( $V_R \geq 200V$ ): $V_S = 1.15 \cdot V_R$
Capacitance Range	$C_R$	1.2 ~ 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	10 000 hours
		5 000 hours
		5 000 hours
		2 000 hours
	$\Delta C/C_R$	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	AS121M016E080PTC 
	270	8	9	43.2	16	26	2000	AS271M016F090PTD 
	330	8	11.5	52.8	16	23	2350	AS331M016F115PTD 
	470	10	10	75.2	16	21	2600	AS471M016G100PTA 
	560	10	12.5	89.6	16	15	3000	AS561M016G125PTA 
	1500	10	18	240.0	16	12	5000	AS152M016G180PTA 
25	68	6.3	8	17.0	16	45	1400	AS680M025E080PTC 
	150	8	9	37.5	16	27	1900	AS151M025F090PTD 
	220	8	11.5	55.0	16	24	2250	AS221M025F115PTD 
	270	10	10	67.5	16	22	2530	AS271M025G100PTA 
	330	10	12.5	82.5	16	16	2900	AS331M025G125PTA 
	1000	10	18	250.0	16	12	5000	AS102M025G180PTA 
35	47	6.3	8	16.5	16	60	1300	AS470M035E080PTC 
	100	8	9	35.0	16	30	1800	AS101M035F090PTD 
	150	8	11.5	52.5	16	25	2100	AS151M035F115PTD 
	150	10	10	52.5	16	23	2470	AS151M035G100PTA 
	220	10	12.5	77.0	16	17	2830	AS221M035G125PTA 
	680	10	18	238.0	16	14	4600	AS681M035G180PTA 
40	27	6.3	8	10.8	16	70	1250	AS270M040E080PTC 
	56	8	9	22.4	16	32	1750	AS560M040F090PTD 
	82	8	11.5	32.8	16	27	2000	AS820M040F115PTD 
	100	10	10	40.0	16	24	2400	AS101M040G100PTA 
	120	10	10	48.0	16	18	2750	AS121M040G100PTA 
	180	10	12.5	72.0	16	18	3000	AS181M040G125PTA 
50	15	6.3	8	7.5	16	80	1200	AS150M050E080PTC 
	33	8	9	16.5	16	35	1670	AS330M050F090PTD 
	47	8	11.5	23.5	16	30	1900	AS470M050F115PTD 
	56	10	10	28.0	16	25	2320	AS560M050G100PTA 
	82	10	12.5	41.0	16	19	2650	AS820M050G125PTA 
	220	10	18	110.0	16	15	4350	AS221M050G180PTA 
63	10	6.3	8	6.3	16	100	1060	AS100M063E080PTC 
	22	8	9	13.9	16	40	1560	AS220M063F090PTD 
	27	8	11.5	17.0	16	35	1750	AS270M063F115PTD 
	33	10	10	20.8	16	30	2100	AS330M063G100PTA 
	47	10	10	29.6	16	30	2100	AS470M063G100PTA 
	56	10	12.5	35.3	16	22	2400	AS560M063G125PTA 
	150	10	18	94.5	16	18	4000	AS151M063G180PTA 
80	8.2	8	9	6.6	16	90	1050	AS82M080F115PTD 
	15	8	11.5	12.0	16	70	1400	AS150M080F115PTD 
	12	10	10	9.6	16	70	1600	AS120M080G100PTA 
	15	10	10	12.0	16	70	1600	AS150M080G100PTA 
	18	10	12.5	14.4	16	50	1830	AS180M080G125PTA 

 see description at end of standard ratings

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	AS8R2M100F090PTD
	10	8	11.5	10.0	16	80	1300	AS100M100F115PTD
	10	10	10	10.0	16	80	1450	AS100M100G100PTA
	12	10	10	12.0	16	80	1450	AS120M100G100PTA
	15	10	12.5	15.0	16	60	1660	AS150M100G125PTA
	47	10	12.5	15.0	16	60	1660	AS470M100G125PTA
250	8.2	10	12.5	20.5	16	120	740	AS8R2M250G125PTA
400	1.2	8	9	4.8	16	200	430	AS1R2M400F090PTD
	2.2	8	11.5	8.8	16	170	510	AS2R2M400F115PTD
	4.7	10	12.5	18.8	16	150	650	AS4R7M400G125PTA

: Leave **blank** for Standard type

: Enter **X** for AEC-Q200 type

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

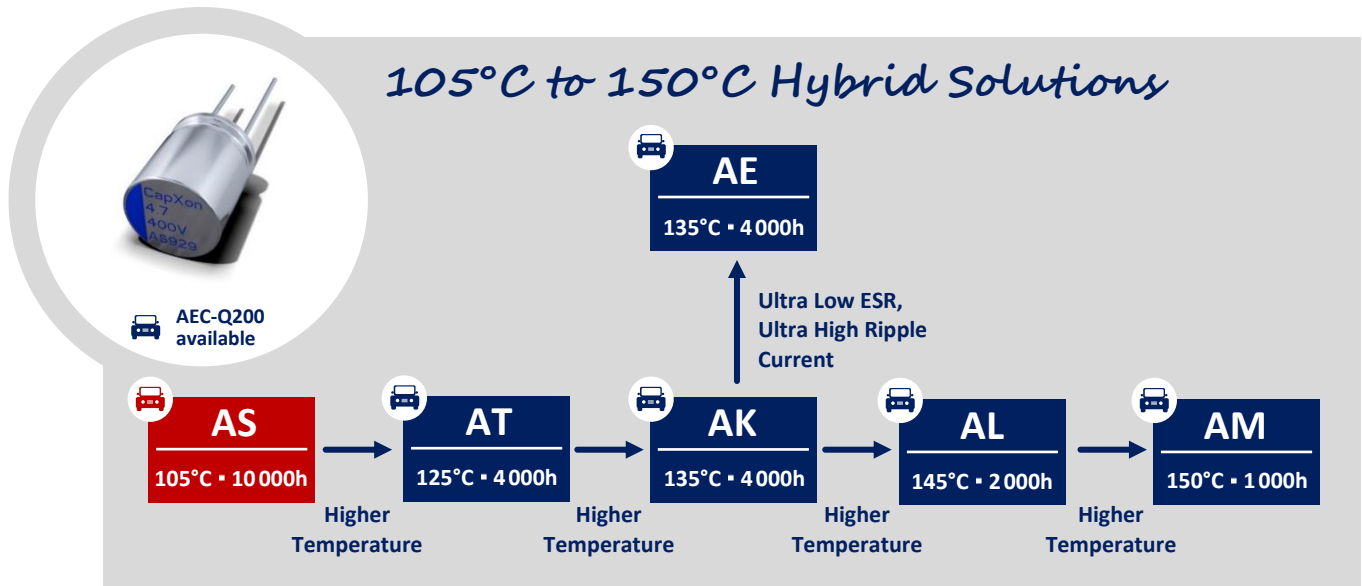
Frequency (Hz)	100 ≤ Freq. < 120	120 ≤ Freq. < 200	200 ≤ Freq. < 300	300 ≤ Freq. < 500
Coefficient $K_f$	0.10	0.10	0.10	0.15
Frequency (Hz)	500 ≤ Freq. < 1k	1k ≤ Freq. < 2k	2k ≤ Freq. < 3k	3k ≤ Freq. < 5k
Coefficient $K_f$	0.20	0.30	0.40	0.45
Frequency (Hz)	5k ≤ Freq. < 10k	10k ≤ Freq. < 15k	15k ≤ Freq. < 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.