PS SERIES ▪ STANDARD TYPE

KEY FEATURES

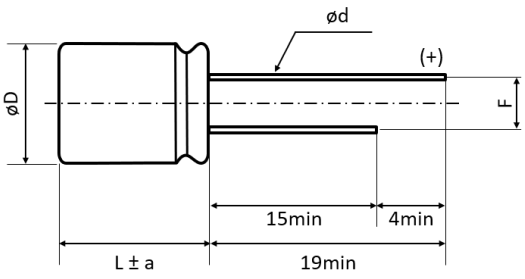
- **SOLID CONDUCTIVE POLYMER** ▪ THT type
- Low ESR at high frequency range
- Endurance: 105°C ▪ 2 000 hours
- Large permissible ripple current
- No dry-out effect guarantees extremely long life

SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	V_R	2.5 ~ 25V DC
Surge Voltage	V_S	($V_R \le 20V$): $V_S = 1.15 \cdot V_R$ ($V_R \ge 25V$): $V_S = 1.10 \cdot V_R$
Capacitance Range	C_R	39 ~ 3500µF
Cap. Tolerance	ΔC	±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)	tanδ	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 applied)	Test	**2 000 hours**
	△C/C_R	Within ±20% of the initial value
	tanδ	Not to exceed 150% of the value specified
	ESR	Not to exceed 150% of the value specified
	I_{Leak}	Less than the specified value
Moisture Resistance stored at 60°C (RH 90 ~ 95%)	Test	**1 000 hours**
	△C/C_R	Within ±20% of the initial value
	tanδ	Not to exceed 150% of the value specified
	ESR	Not to exceed 150% of the value specified
	I_{Leak}	Less than the specified value

DIMENSIONS ▪ All dimensions in mm



ø D	L	ØD+0.5max	a	F±0.5	Ød±0.05
8	8	8	1	3.5	0.6
8	11.5	8	1.5	3.5	0.6
10	12.5	10	1.5	5.0	0.6

For further information please contact sales@capxon.org

STANDARD RATINGS

Part number shows tape version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_{LEAK} (µA, 2min)	tanδ +20°C ▪ 120Hz (%)	Max. ESR +20°C ▪ 100kHz (mΩ)	I_R ▪ Max. Ripple Current +105°C ▪ 100kHz (mA rms)	CapXon Part Number
2.5	560	8	8	280	8	12	5100	PS561M2R5F080PTD
	560	8	11.5	280	8	12	5100	PS561M2R5F115PTD
	680	8	8	340	8	12	5200	PS681M2R5F080PTD
	680	8	11.5	340	8	12	5200	PS681M2R5F115PTD
	820	8	8	410	8	12	5200	PS821M2R5F080PTD
	820	8	11.5	410	8	12	5200	PS821M2R5F115PTD
	1000	8	8	500	8	12	5500	PS102M2R5F080PTD
	1000	8	11.5	500	8	12	5500	PS102M2R5F115PTD
	1200	8	8	600	8	12	5500	PS122M2R5F080PTD
	1200	8	11.5	600	8	12	5500	PS122M2R5F115PTD
	1500	8	8	750	8	12	5500	PS152M2R5F080PTD
	1500	8	11.5	750	8	12	5500	PS152M2R5F115PTD
	2000	8	11.5	1000	8	12	5900	PS202M2R5F115PTD
	2000	10	12.5	1000	8	12	5900	PS202M2R5G125PTA
	2200	10	12.5	1100	8	12	5900	PS222M2R5G125PTA
	2500	10	12.5	1250	8	12	5900	PS252M2R5G125PTA
	2700	10	12.5	1350	8	12	5900	PS272M2R5G125PTA
	3000	10	12.5	1500	8	12	5900	PS302M2R5G125PTA
	3300	10	12.5	1650	8	12	5900	PS332M2R5G125PTA
	3500	10	12.5	1750	10	12	5900	PS352M2R5G125PTA
4	560	8	8	448	8	12	5100	PS561M004F080PTD
	560	8	11.5	448	8	12	5200	PS561M004F115PTD
	680	8	8	544	8	12	5100	PS681M004F080PTD
	680	8	11.5	544	8	12	5200	PS681M004F115PTD
	820	8	8	656	8	12	5100	PS821M004F080PTD
	820	8	11.5	656	8	12	5200	PS821M004F115PTD
	820	10	12.5	656	8	12	5900	PS821M004G125PTA
	1000	8	8	800	10	12	5100	PS102M004F080PTD
	1000	8	11.5	800	10	12	5500	PS102M004F115PTD
	1000	10	12.5	800	10	12	5900	PS102M004G125PTA
	1200	8	11.5	960	10	12	5500	PS122M004F115PTD
	1200	10	12.5	960	10	12	5900	PS122M004G125PTA
	1500	8	11.5	600	10	12	5500	PS152M004F115PTD
	1500	10	12.5	600	10	12	5900	PS152M004G125PTA
	2000	10	12.5	800	10	12	5900	PS202M004G125PTA
	2200	10	12.5	880	10	12	5900	PS222M004G125PTA
	2500	10	12.5	1000	10	12	5900	PS252M004G125PTA
6.3	180	8	8	227	7	21	5100	PS181M6R3F080PTD
	180	8	11.5	227	7	21	5100	PS181M6R3F115PTD
	220	8	8	277	7	21	5100	PS221M6R3F080PTD
	220	8	11.5	277	7	21	5100	PS221M6R3F115PTD
	270	8	8	340	7	21	5100	PS271M6R3F080PTD
	270	8	11.5	340	7	21	5100	PS271M6R3F115PTD
	330	8	8	416	7	15	5100	PS331M6R3F080PTD

See "PACKAGING INFORMATION" for pin treatment options.

STANDARD RATINGS

Part number shows tape version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_{LEAK} (µA, 2min)	tanδ +20°C ▪ 120Hz (%)	Max. ESR +20°C ▪ 100kHz (mΩ)	I_R ▪ Max. Ripple Current +105°C ▪ 100kHz (mA rms)	CapXon Part Number
6.3	330	8	11.5	416	7	15	5500	PS331M6R3F115PTD
	390	8	8	491	8	15	5100	PS391M6R3F080PTD
	390	8	11.5	491	8	15	5500	PS391M6R3F115PTD
	470	8	8	592	8	12	5100	PS471M6R3F080PTD
	470	8	11.5	592	8	12	5500	PS471M6R3F115PTD
	560	8	8	706	8	12	5100	PS561M6R3F080PTD
	560	8	11.5	706	8	12	5500	PS561M6R3F115PTD
	680	8	8	428	8	10	5100	PS681M6R3F080PTD
	680	8	11.5	428	8	12	5500	PS681M6R3F115PTD
	680	10	12.5	428	8	12	5900	PS681M6R3G125PTA
	820	8	8	517	10	12	5100	PS821M6R3F080PTD
	820	8	11.5	517	10	12	5500	PS821M6R3F115PTD
	820	10	12.5	517	10	12	5900	PS821M6R3G125PTA
	1000	8	8	630	10	12	5100	PS102M6R3F080PTD
	1000	8	11.5	630	10	12	5500	PS102M6R3F115PTD
	1000	10	12.5	630	10	12	5900	PS102M6R3G125PTA
	1200	8	11.5	756	10	12	5500	PS122M6R3F115PTD
	1200	10	12.5	756	10	12	5900	PS122M6R3G125PTA
	1500	8	11.5	945	10	12	5500	PS152M6R3F115PTD
	1500	10	12.5	945	10	12	5900	PS152M6R3G125PTA
	2000	10	12.5	1260	10	12	5900	PS202M6R3G125PTA
	2200	10	12.5	1386	10	12	5900	PS222M6R3G125PTA
	2500	10	12.5	1575	10	12	5900	PS252M6R3G125PTA
10	180	8	8	180	8	15	5100	PS181M010F080PTD
	180	8	11.5	180	8	15	5500	PS181M010F115PTD
	220	8	8	220	8	15	5100	PS221M010F080PTD
	220	8	11.5	220	8	15	5500	PS221M010F115PTD
	270	8	8	270	8	15	5100	PS271M010F080PTD
	270	8	11.5	270	8	15	5500	PS271M010F115PTD
	330	8	8	330	8	12	5100	PS331M010F080PTD
	330	8	11.5	330	8	12	5500	PS331M010F115PTD
	390	8	8	390	8	12	5100	PS391M010F080PTD
	390	8	11.5	390	8	12	5500	PS391M010F115PTD
	470	8	8	470	8	12	5500	PS471M010F080PTD
	470	8	11.5	470	8	12	5500	PS471M010F115PTD
	560	8	8	560	8	12	5500	PS561M010F080PTD
	560	8	11.5	560	8	12	5500	PS561M010F115PTD
	680	8	8	680	10	12	5500	PS681M010F080PTD
	680	8	11.5	680	10	12	5900	PS681M010F115PTD
	680	10	12.5	680	10	12	5900	PS681M010G125PTA
	820	8	11.5	820	10	12	5900	PS821M010F115PTD
	820	10	12.5	820	10	12	5900	PS821M010G125PTA
	1000	8	11.5	1000	10	12	5900	PS102M010F115PTD
	1000	10	12.5	1000	10	12	5900	PS102M010G125PTA

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STANDARD RATINGS

Part number shows tape version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_{LEAK} (µA, 2min)	tanδ +20°C ▪ 120Hz (%)	Max. ESR +20°C ▪ 100kHz (mΩ)	I_R ▪ Max. Ripple Current +105°C ▪ 100kHz (mA rms)	CapXon Part Number
10	1200	10	12.5	1200	10	12	5900	PS122M010G125PTA
	1500	10	12.5	1500	10	12	5900	PS152M010G125PTA
16	100	8	11.5	160	8	12	4800	PS101M016F115PTD
	150	8	8	240	8	12	4500	PS151M016F080PTD
	180	8	8	288	8	15	4500	PS181M016F080PTD
	180	8	11.5	288	8	15	4800	PS181M016F115PTD
	220	8	8	352	8	15	4500	PS221M016F080PTD
	220	8	11.5	352	8	15	5000	PS221M016F115PTD
	270	8	8	432	8	12	4500	PS271M016F080PTD
	270	8	11.5	432	8	15	5000	PS271M016F115PTD
	270	10	12.5	432	8	12	5500	PS271M016G125PTA
	330	8	8	528	8	12	4500	PS331M016F080PTD
	330	8	11.5	528	8	12	5000	PS331M016F115PTD
	330	10	12.5	528	8	12	5500	PS331M016G125PTA
	390	8	8	624	8	12	4500	PS391M016F080PTD
	390	8	11.5	624	8	12	5000	PS391M016F115PTD
	390	10	12.5	624	8	12	5500	PS391M016G125PTA
	470	8	8	752	10	16	4500	PS471M016F080PTD
	470	8	11.5	752	10	12	5000	PS471M016F115PTD
	470	10	12.5	752	10	12	5500	PS471M016G125PTA
	560	8	8	896	12	16	4500	PS561M016F080PTD
	560	8	11.5	896	10	12	5000	PS561M016F115PTD
	560	10	12.5	896	10	12	5500	PS561M016G125PTA
	680	8	11.5	1088	12	14	5000	PS681M016F115PTD
	680	10	12.5	1088	10	12	5500	PS681M016G125PTA
	820	10	12.5	1312	10	12	5500	PS821M016G125PTA
	1000	10	12.5	1600	10	12	5500	PS102M016G125PTA
	1200	10	12.5	1920	12	12	5500	PS122M016G125PTA
20	39	8	8	156	8	25	3500	PS390M020F080PTD
	39	8	11.5	156	8	20	3800	PS390M020F115PTD
	47	8	8	188	8	25	3500	PS470M020F080PTD
	47	8	11.5	188	8	20	3800	PS470M020F115PTD
	68	8	8	272	8	25	3500	PS680M020F080PTD
	68	8	11.5	272	8	20	4100	PS680M020F115PTD
	82	8	8	328	8	20	3800	PS820M020F080PTD
	82	8	11.5	328	8	20	4100	PS820M020F115PTD
	100	8	8	400	8	18	3900	PS101M020F080PTD
	100	8	11.5	400	8	18	4200	PS101M020F115PTD
	100	10	12.5	400	8	18	4500	PS101M020G125PTA
	150	8	8	600	8	18	3900	PS151M020F080PTD
	150	8	11.5	600	8	18	4200	PS151M020F115PTD
	150	10	12.5	600	8	18	4500	PS151M020G125PTA
	180	8	8	720	8	18	3900	PS181M020F080PTD
	180	8	11.5	720	8	18	4200	PS181M020F115PTD

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STANDARD RATINGS

Part number shows tape version with straight leads

V_R (V)	C_R (µF)	ø D (mm)	L (mm)	I_{LEAK} (µA, 2min)	tanδ +20°C ▪ 120Hz (%)	Max. ESR +20°C ▪ 100kHz (mΩ)	I_R ▪ Max. Ripple Current +105°C ▪ 100kHz (mA rms)	CapXon Part Number
20	180	10	12.5	720	8	18	4500	PS181M020G125PTA
	220	8	8	880	8	18	3900	PS221M020F080PTD
	220	8	11.5	880	8	18	4200	PS221M020F115PTD
	220	10	12.5	880	8	18	4500	PS221M020G125PTA
	270	8	11.5	1080	8	15	4500	PS271M020F115PTD
	270	10	12.5	1080	8	15	4900	PS271M020G125PTA
	330	8	11.5	1320	8	15	4500	PS331M020F115PTD
	330	10	12.5	1320	8	15	4900	PS331M020G125PTA
	390	8	11.5	1560	8	15	4500	PS391M020F115PTD
	390	10	12.5	1560	8	15	4900	PS391M020G125PTA
	470	10	12.5	1880	8	15	4900	PS471M020G125PTA
	560	10	12.5	2240	10	20	4500	PS561M020G125PTA
	680	10	12.5	2720	10	20	4500	PS681M020G125PTA
	820	10	12.5	3280	12	20	4500	PS821M020G125PTA
	1000	10	12.5	2000	12	20	4500	PS102M020G125PTA
25	39	8	8	195	8	25	3500	PS390M025F080PTD
	39	8	11.5	195	8	20	3800	PS390M025F115PTD
	47	8	8	235	8	25	3500	PS470M025F080PTD
	47	8	11.5	235	8	20	3800	PS470M025F115PTD
	68	8	8	340	8	25	3500	PS680M025F080PTD
	68	8	11.5	340	8	20	4100	PS680M025F115PTD
	82	8	8	410	8	20	3800	PS820M025F080PTD
	82	8	11.5	410	8	20	4100	PS820M025F115PTD
	100	8	8	500	8	20	3900	PS101M025F080PTD
	100	8	11.5	500	8	20	4200	PS101M025F115PTD
	100	10	12.5	500	8	20	4500	PS101M025G125PTA
	150	8	8	750	8	20	3900	PS151M025F080PTD
	150	8	11.5	750	8	20	4200	PS151M025F115PTD
	150	10	12.5	750	8	20	4500	PS151M025G125PTA
	180	8	8	900	8	20	3900	PS181M025F080PTD
	180	8	11.5	900	8	20	4200	PS181M025F115PTD
	180	10	12.5	900	8	20	4500	PS181M025G125PTA
	220	8	8	1100	8	20	3900	PS221M025F080PTD
	220	8	11.5	1100	8	20	4200	PS221M025F115PTD
	220	10	12.5	1100	8	20	4500	PS221M025G125PTA
	270	8	11.5	1350	8	18	4400	PS271M025F115PTD
	270	10	12.5	1350	8	18	4800	PS271M025G125PTA
	330	8	11.5	1650	8	18	4400	PS331M025F115PTD
	330	10	12.5	1650	8	18	4800	PS331M025G125PTA
	390	10	12.5	1950	8	20	4500	PS391M025G125PTA
	470	10	12.5	2350	8	20	4500	PS471M025G125PTA
	560	10	12.5	2800	10	20	4500	PS561M025G125PTA
	680	10	12.5	3400	12	20	4500	PS681M025G125PTA
	820	10	12.5	2050	12	20	4500	PS821M025G125PTA

See "PACKAGING INFORMATION" for pin treatment options.

MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

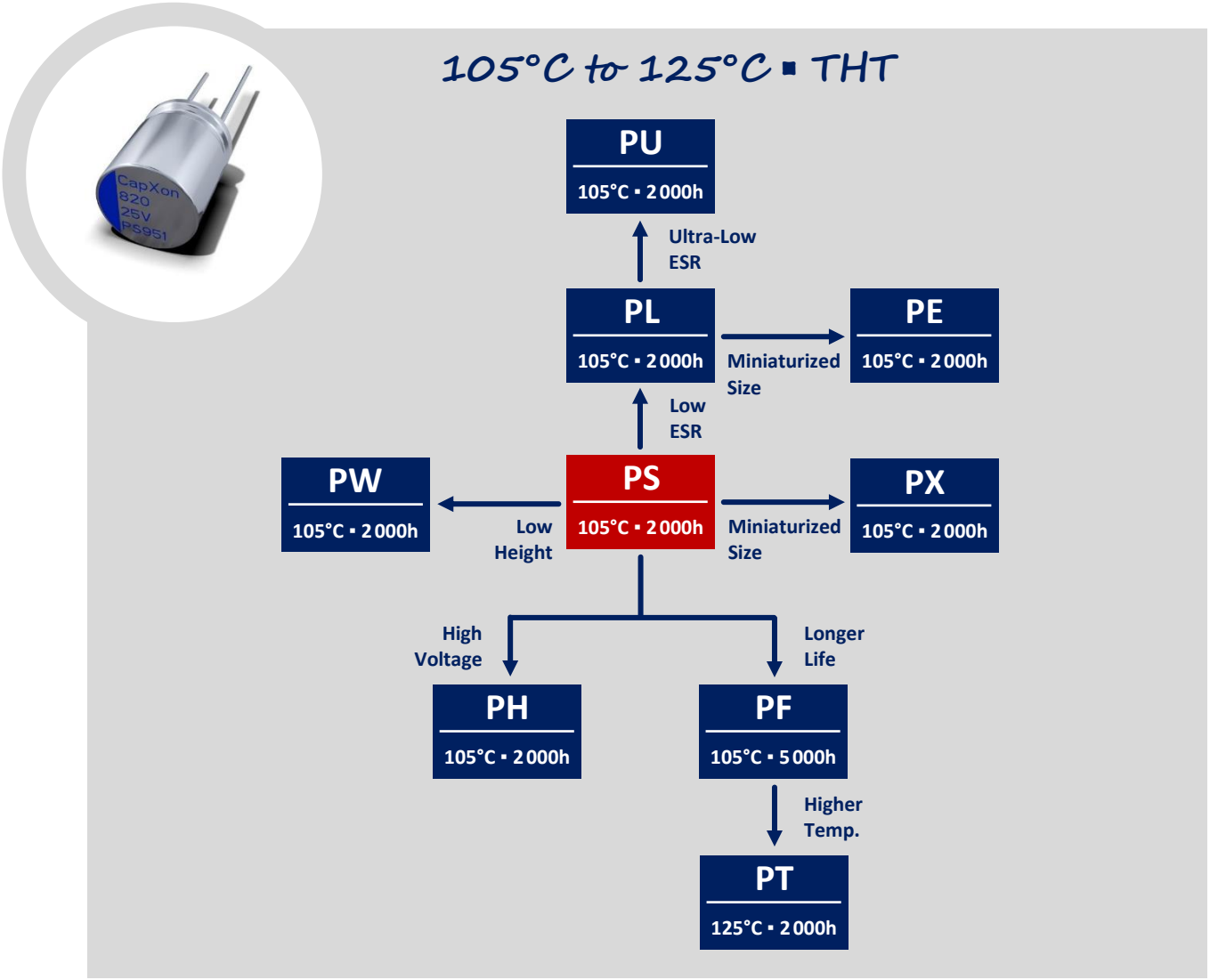
Frequency (Hz)	120 ≤ Freq. < 1k	1k ≤ Freq. < 10k	10k ≤ Freq. < 100k	100k ≤ Freq. < 300k
Coefficient K_f	0.05	0.3	0.7	1

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.

General Precautions & Guidelines	Packaging Information	3D Models	Reliability Tests

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 or contact CapXon directly.