PU SERIES ▪ ULTRA LOW ESR ≤ 7mΩ

KEY FEATURES

LOW ESR

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

HF Halogen Free

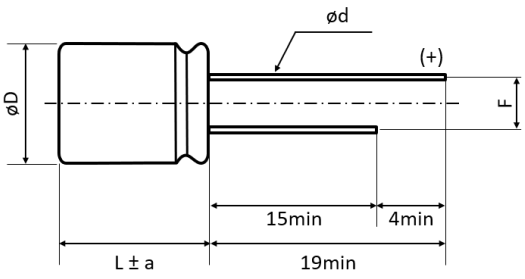
RoHS & REACH COMPLIANT

SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	V_R	2.5 ~ 10V DC
Surge Voltage	V_S	$V_S = 1.15 \cdot V_R$
Capacitance Range	C_R	180 ~ 3900µF
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	7	6100	PU561M2R5F080PTD
	560	8	11.5	280	8	7	6100	PU561M2R5F115PTD
	680	8	8	340	8	7	6100	PU681M2R5F080PTD
	680	8	11.5	340	8	7	6100	PU681M2R5F115PTD
	820	8	8	410	8	7	6100	PU821M2R5F080PTD
	820	8	11.5	410	8	7	6100	PU821M2R5F115PTD
	1000	8	8	500	8	7	6100	PU102M2R5F080PTD
	1000	8	11.5	500	8	7	6100	PU102M2R5F115PTD
	1200	8	8	600	12	7	6100	PU122M2R5F080PTD
	1200	8	11.5	600	8	7	6100	PU122M2R5F115PTD
	1500	8	8	750	12	7	6100	PU152M2R5F080PTD
	1500	8	11.5	750	8	7	6100	PU152M2R5F115PTD
	1500	10	12.5	750	8	7	6100	PU152M2R5G125PTA
	2000	8	11.5	1000	8	7	6100	PU202M2R5F115PTD
	2000	10	12.5	1000	8	7	6100	PU202M2R5G125PTA
	2200	8	11.5	1100	8	7	6700	PU222M2R5F115PTD
	2500	10	12.5	1250	8	7	7100	PU252M2R5G125PTA
	2700	10	12.5	1350	8	7	7100	PU272M2R5G125PTA
	3000	10	12.5	1500	8	7	7100	PU302M2R5G125PTA
	3300	10	12.5	1650	8	7	7100	PU332M2R5G125PTA
	3500	10	12.5	1750	8	7	7100	PU352M2R5G125PTA
	3900	10	12.5	1950	8	7	7100	PU392M2R5G125PTA
4	560	8	8	224	8	7	6100	PU561M004F080PTD
	560	8	11.5	224	8	7	6100	PU561M004F115PTD
	680	8	8	272	8	7	6100	PU681M004F080PTD
	680	8	11.5	272	8	7	6100	PU681M004F115PTD
	820	8	8	328	8	7	6100	PU821M004F080PTD
	820	8	11.5	328	8	7	6100	PU821M004F115PTD
	820	10	12.5	328	8	7	6600	PU821M004G125PTA
	1000	8	8	800	8	7	6100	PU102M004F080PTD
	1000	8	11.5	800	8	7	6100	PU102M004F115PTD
	1000	10	12.5	800	8	7	6600	PU102M004G125PTA
	1200	8	11.5	960	8	7	6100	PU122M004F115PTD
	1200	10	12.5	960	8	7	6600	PU122M004G125PTA
	1500	8	11.5	1200	10	7	6100	PU152M004F115PTD
	1500	10	12.5	1200	10	7	6600	PU152M004G125PTA
	1800	10	12.5	1440	10	7	6600	PU182M004G125PTA
	2000	10	12.5	1600	10	7	6600	PU202M004G125PTA
	2200	10	12.5	1760	10	7	6600	PU222M004G125PTA
	2500	10	12.5	2000	10	7	6600	PU252M004G125PTA
	2700	10	12.5	2160	10	7	6900	PU272M004G125PTA
6.3	180	8	8	113	10	7	6100	PU181M6R3F080PTD
	180	8	11.5	113	10	7	6100	PU181M6R3F115PTD
	220	8	8	139	10	7	6100	PU221M6R3F080PTD

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	220	8	11.5	139	10	7	6100	PU221M6R3F115PTD
	270	8	8	170	10	7	6100	PU271M6R3F080PTD
	270	8	11.5	170	10	7	6100	PU271M6R3F115PTD
	330	8	8	208	10	7	6100	PU331M6R3F080PTD
	330	8	11.5	208	10	7	6100	PU331M6R3F115PTD
	390	8	8	246	10	7	6100	PU391M6R3F080PTD
	390	8	11.5	246	10	7	6100	PU391M6R3F115PTD
	470	8	8	296	10	7	6100	PU471M6R3F080PTD
	470	8	11.5	296	10	7	6100	PU471M6R3F115PTD
	560	8	8	352	8	7	6100	PU561M6R3F080PTD
	560	8	11.5	352	8	7	6100	PU561M6R3F115PTD
	680	8	8	428	8	7	6100	PU681M6R3F080PTD
	680	8	11.5	428	8	7	6600	PU681M6R3F115PTD
	680	10	12.5	428	8	7	6600	PU681M6R3G125PTA
	820	8	8	517	10	7	6100	PU821M6R3F080PTD
	820	8	11.5	517	10	7	6600	PU821M6R3F115PTD
	820	10	12.5	517	10	7	6600	PU821M6R3G125PTA
	1000	8	8	630	10	7	6200	PU102M6R3F080PTD
	1000	8	11.5	630	10	7	7100	PU102M6R3F115PTD
	1000	10	12.5	630	10	7	7100	PU102M6R3G125PTA
	1200	8	11.5	756	10	7	7100	PU122M6R3F115PTD
	1200	10	12.5	756	10	7	7100	PU122M6R3G125PTA
	1500	10	12.5	945	10	7	7100	PU152M6R3G125PTA
	1800	10	12.5	1134	10	7	7100	PU182M6R3G125PTA
	2000	10	12.5	1260	10	7	7100	PU202M6R3G125PTA
	2500	10	12.5	1575	10	7	7100	PU252M6R3G125PTA
10	180	8	11.5	180	8	7	6600	PU181M010F115PTD
	220	8	11.5	220	8	7	6600	PU221M010F115PTD
	270	8	11.5	270	8	7	6600	PU271M010F115PTD
	330	8	11.5	330	8	7	6600	PU331M010F115PTD
	390	8	11.5	390	8	7	6600	PU391M010F115PTD
	470	8	11.5	470	8	7	6600	PU471M010F115PTD
	470	10	12.5	470	8	7	6600	PU471M010G125PTA
	560	8	11.5	560	8	7	6600	PU561M010F115PTD
	560	10	12.5	560	8	7	6600	PU561M010G125PTA
	680	8	11.5	680	10	7	6600	PU681M010F115PTD
	680	10	12.5	680	10	7	6600	PU681M010G125PTA
	820	8	11.5	820	10	7	7100	PU821M010F115PTD
	820	10	12.5	820	10	7	7100	PU821M010G125PTA
	1000	10	12.5	1000	10	7	7100	PU102M010G125PTA
	1200	10	12.5	1200	10	7	7100	PU122M010G125PTA
	1500	10	12.5	1500	10	7	7100	PU152M010G125PTA

See "PACKAGING INFORMATION" for pin treatment options.

MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

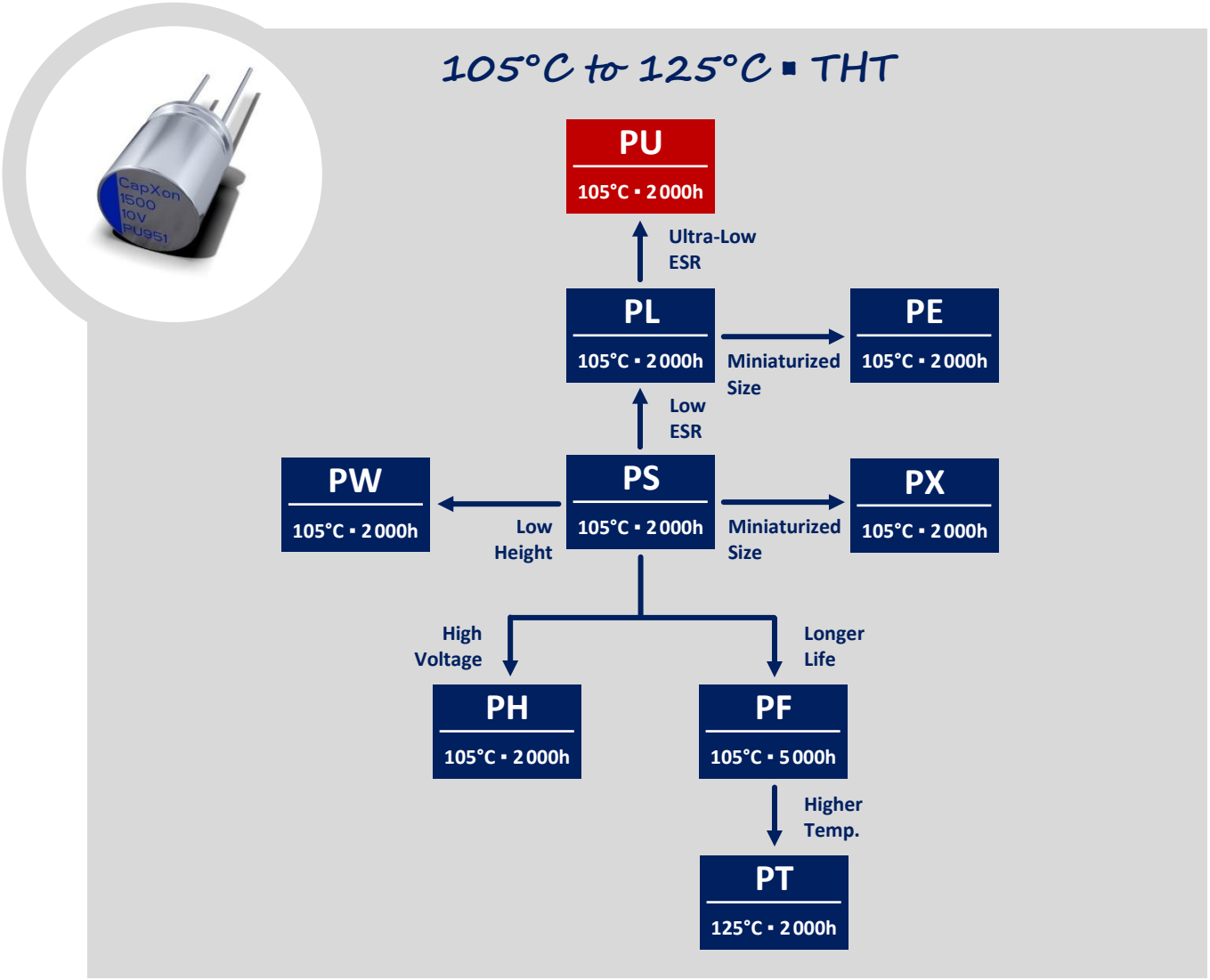
Frequency (Hz)	120 ≤ Freq. < 1k	1k ≤ Freq. < 10k	10k ≤ Freq. < 100k	100k ≤ Freq. < 300k
Coefficient K_f	0.05	0.3	0.7	1

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



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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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