

PE SERIES ▀ ULTRA MINIATURIZED TYPE

KEY FEATURES



- **SOLID CONDUCTIVE POLYMER** ▀ THT type
- Ultra-miniaturized type for space critical applications
- Endurance: 105°C ▀ 2 000 hours
- Large permissible ripple current
- No dry-out effect guarantees extremely long life

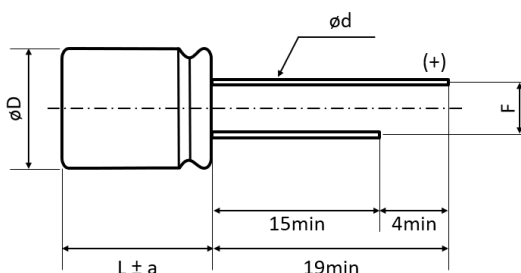


SPECIFICATIONS

Items		Performance Characteristics
Operating Temperature Range		-55 ~ +105°C
Rated Voltage Range	V_R	2.5 ~ 16 V DC
Surge Voltage	V_S	$V_S = 1.15 \cdot V_R$
Capacitance Range	C_R	270 ~ 1200 μ F
Cap. Tolerance	ΔC	$\pm 20\%$ (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 applied)	Test	2 000 hours
	$\Delta C/C_R$	Within $\pm 20\%$ of the initial value
	$\tan\delta$	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
	$\Delta C/C_R$	Within $\pm 20\%$ of the initial value
	$\tan\delta$	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



ϕD	L	$\phi D + 0.5\text{max}$	a	F ± 0.5	$\phi d \pm 0.05$
6.3	8	6.3	1	2.5	0.5

STANDARD RATINGS

Part number shows tape version with straight leads

V_R (V)	C_R (μF)	ϕD (mm)	L (mm)	I_{LEAK} (μA , 2min)	$\tan\delta$ +20°C - 120Hz (%)	Max. ESR +20°C - 100kHz (m Ω)	I_R - Max. Ripple Current +105°C - 100kHz (mA rms)	CapXon Part Number
2.5	560	6.3	8	280	8	7	5600	PE561M2R5E080PTC
	820	6.3	8	410	8	7	5600	PE821M2R5E080PTC
	1200	6.3	8	600	10	7	5600	PE122M2R5E080PTC
4	560	6.3	8	448	8	7	5600	PE561M004E080PTC
6.3	330	6.3	8	415	10	8	5000	PE331M6R3E080PTC
	470	6.3	8	592	8	7	5600	PE471M6R3E080PTC
	560	6.3	8	706	8	7	5600	PE561M6R3E080PTC
	680	6.3	8	857	8	7	5600	PE681M6R3E080PTC
16	270	6.3	8	864	8	15	4500	PE271M016E080PTC

See "PACKAGING INFORMATION" for pin treatment options.

MULTIPLIER K_f for RIPPLE CURRENT vs. FREQUENCY

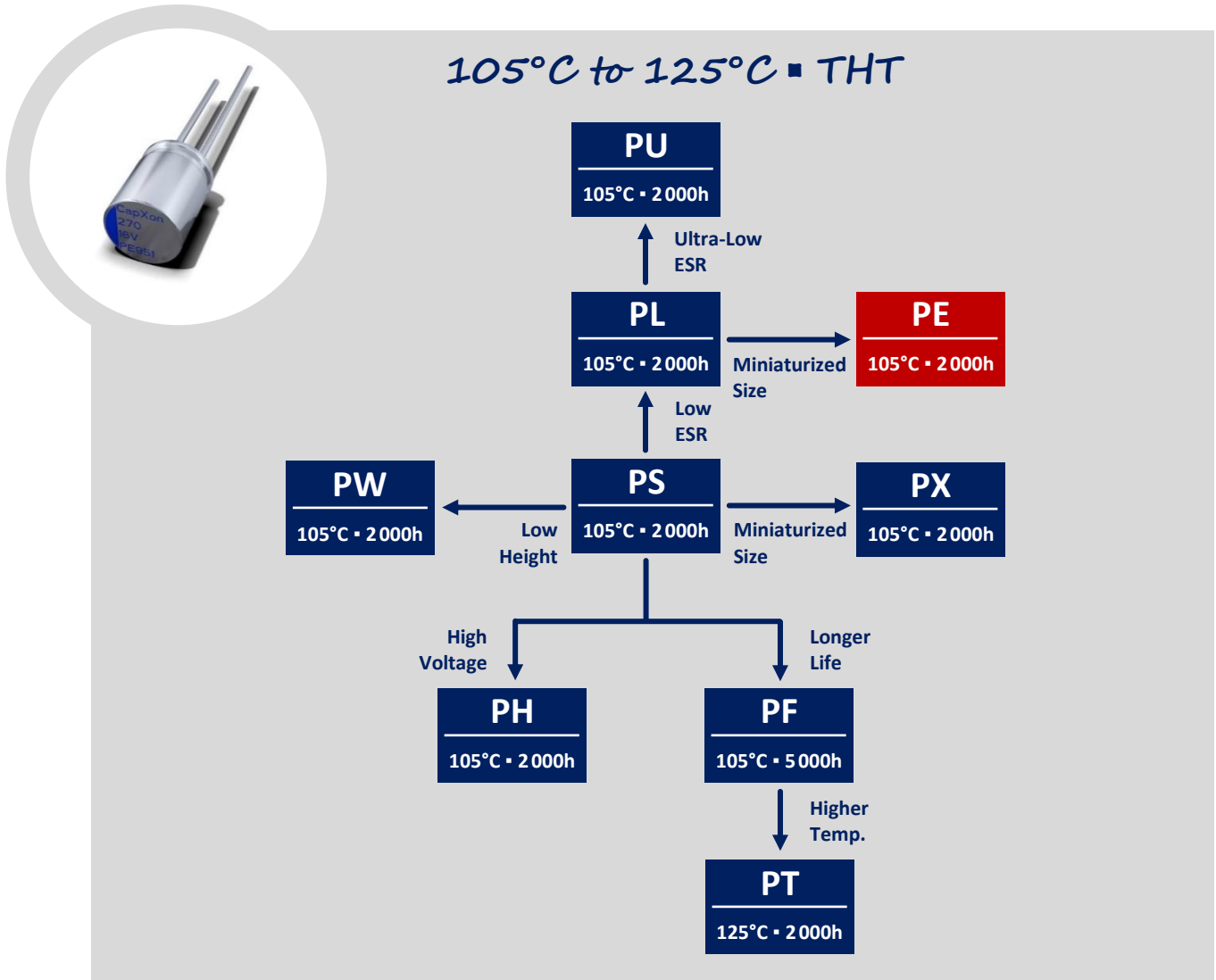
Frequency (Hz)	120 ≤ Freq. < 1k	1k ≤ Freq. < 10k	10k ≤ Freq. < 100k	100k ≤ Freq. < 300k
Coefficient K_f	0.05	0.3	0.7	1

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.

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