

High temperature film capacitors

POWER CAPACITORS FOR DC LINK APPLICATIONS



Last generations of power electronics modules, especially those based on Silicon carbide, allow operation at higher switching frequencies in more compact designs and therefore at higher temperatures.

Our new range of metallized film capacitors supporting operating temperatures up to 125°C and featuring low inductance designs will perfectly fit into your system without limiting its global performance.

Our large experience in designing customer specific capacitors enables us to provide you with the best efficient solution for your system.

TECHNICAL DATA OVERVIEW

Capacitance	Flexible capacitance range, determined by the geometry of the housing
Un	600 V, 800 V, 1000 V as standard, higher voltages on request
ESL	10-20 nH as standard, lower on request
Temperature	-40 °C ... 125 °C operation hot spot temperature

FEATURES BENEFITS

- Design for high temperature operation up to 125°C
- Lifetime up to 10.000h @ 580V / 125 °C
- Lifetime up to 100.000h @ 800V / 85 °C
- Very low inductance on request for high switching frequencies
- Low ESR high current load
- Self-healing construction
- Custom design available

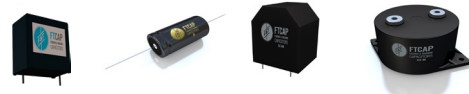
APPLICATIONS

- Designed to support SiC and GaN technologies
- DC Link
- Power conversion
- Avionics, railway, industry, EV charging, etc.

STANDARDS

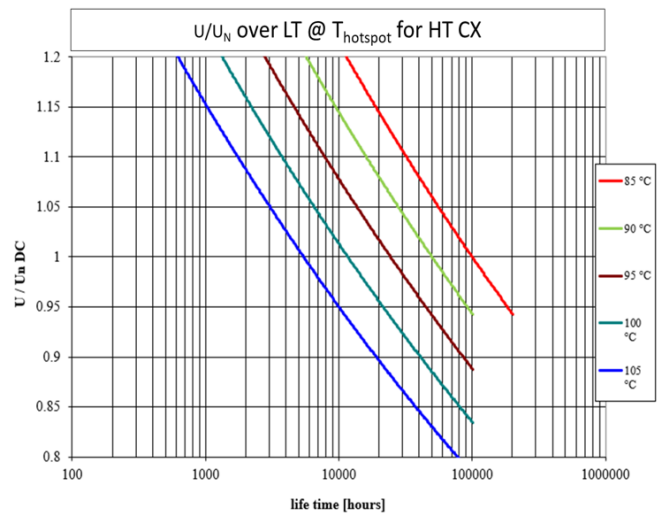
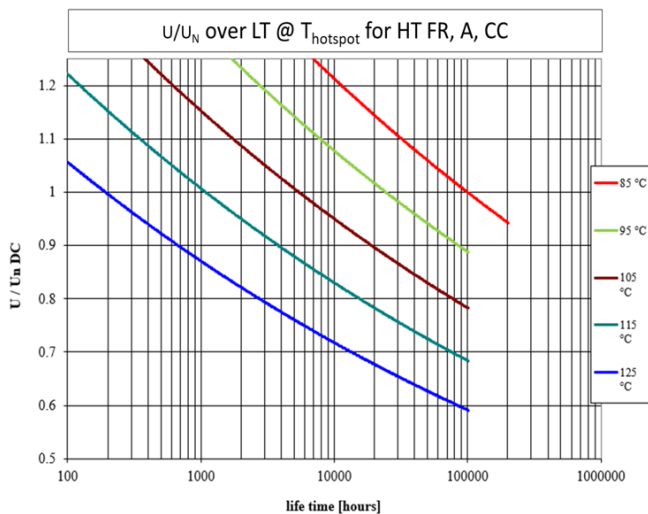
- IEC 61071

High temperature film capacitors



Parameter	Symbol	Unit	Condition	Value	Value	Value	Value
Capacitance	C	μF	1 V / 1 kHz	9	15,00	27	125
Tolerance		%		± 10	± 10	± 10	± 10
Rated voltage	Un DC	VDC	85 °C	800	800	800	800
Rated current	I RMS max.	A	10 kHz	9,8	14	29,5	80
Peak current	I peak	A	max. repetitive	236	393	708	3280
Tangent delta	tgd		1 V / 1 kHz	< 7	< 6	< 7.5	< 8
Equivalent serie resistance	ESR	mW	10 kHz to 50 kHz	< 9.8	< 5.0	< 3.5	< 0.8
Thermal resistance	Rth	°C/W	hot spot-case	19.6	20.6	9.3	4.5
Stray inductance	ESL	nH		< 18	< 12	< 15	< 10.5
Insulation resistance terminals	Ri	MW	500 VDC - 1 min	> 5500	> 1500	> 833	> 180
Test voltage between terminals	U T1	VDC	10 s.	1200	1200	1200	1200
Estimated operational life	LT		580 VDC / 125°C	10 000	10 000	10 000	please consult us
Estimated operational life	LT		800 VDC / 85°C	100 000	100 000	100 000	100 000
Climatic category				40/125/21	40/125/21	40/125/21	40/105/21

Dimensions	Symbol	Unit	Condition	Value	Value	Value	Value
Diameter	D	mm	±1		28		85
Width	B	mm	±1	20		36	
Height	H	mm	±1	29		41	40
Length	L	mm	±1	31,5	32	40	
Terminals					1,0		M6 x D16
Axial tinned wire	d	mm		∅ 1.0 x 20		∅ 1.2	
	RM	mm	±1	27,9		25 and 30	45



For higher temperature, please consult us.