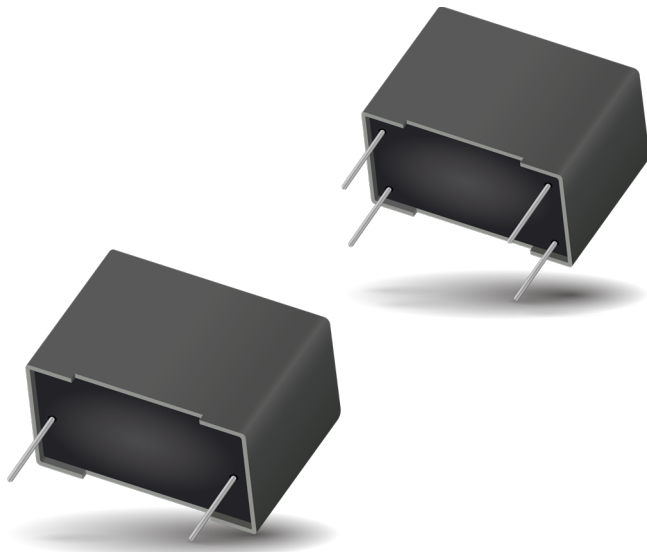


# DC FILTERING

FT - 1820 \*RoHS Compliant



## GENERAL DESCRIPTION

The FT series uses a non-impregnated metallized polyester dielectric specially treated to have a very high dielectric strength in operation condition up to 125 °C. (Operating temperature for 105°C to 125°C should be derated at 1.25%/°C) Please see derating graphs for more information.

FT series meets Automotive Electronics Council's AEC- Q200 qualification requirements for pitch  $\leq$  27.5mm.

## APPLICATIONS

- High Performance & High Reliability DC Link Circuits
- Automotive Applications

## PACKAGING MATERIAL

Self-extinguishing plastic case (V0 = in accordance with UL 94) filled thermosetting resin.

Self-extinguishing thermosetting resin (V0 = in accordance with UL 94; I3F2 = in accordance with NF F 16-101).

## OPERATING TEMPERATURE RANGE

- Operating temperature range: -40°C to +105°C

## STANDARDS

- IEC 61071: Power Electronic Capacitors IEC 60384-2: Fixed Capacitors for Use in Electronic Equipment - Fixed Metallized Polyester Film Dielectric DC Capacitors
- IEC 60384-2: Fixed Capacitors for Use in Electronic Equipment - Fixed Metallized Polyester Film Dielectric DC Capacitors
- IEC 60068-1: Environmental testing - Part 1: General and guidance
- AEC-Q200D: Automotive Electronics Council

## LIFETIME EXPECTANCY

One unique feature of this technology (versus aluminum electrolytics) is how the capacitor reacts at the end of its lifetime.

Unlike aluminum electrolytic, film capacitors do not have a catastrophic failure mode. Film capacitors simply experience a parametric loss of capacitance of about 3% of initial value, with no risk of a short circuit.

The capacitor continues to be functional even after this 3% decrease.

## HOW TO ORDER

<b>FT</b>	<b>D*</b>	<b>4</b>	<b>K</b>	<b>0104</b>	<b>K</b>	<b>02</b>	<b>C</b>
Series	Case	Type	Voltage	Cap	Tolerance	Lead Type	Lead Type
FT	A* for P=10mm C* for P=15mm D* for P=22.5mm E* for P=27.5mm F* for P=37.5mm G* for P=52.5mm	4 = Polyester	S = 63V T = 100V F = 160V D = 250V I = 400V E = 630V K = 1000V	$\mu$ F Code	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	02 = 2 Leads 04 = 4 Leads	C = 2pins Short Lead L = 2pins Long Lead A = 4 pins P2 = 10.2mm B = 4 pins P2 = 20.3mm

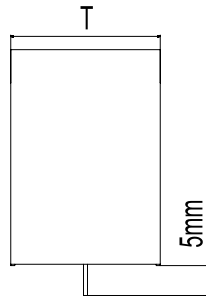
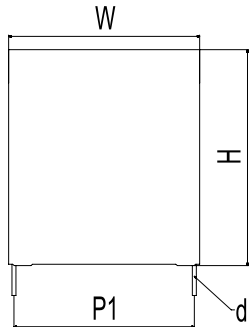
\*Lead length for 2pins short lead & 4pins is 5mm, 20mm min for long lead

# DC FILTERING

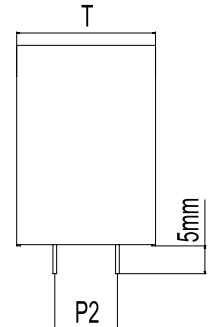
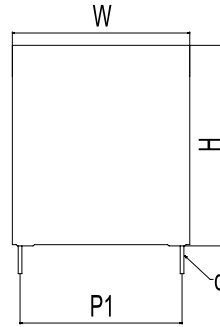
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## DIMENSIONS

### 2 PIN



### 4 PIN



## CASE CODE

mm

Case Code	Dimensions				
	W ± 0.5	H ± 0.5	T ± 0.5	P1 ± 1.0	d ± 0.05
	mm	mm	mm	mm	mm
A1	13.0	11.0	5.0	10	0.6
A2	13.0	12.0	6.0	10	0.6
A3	13.0	16.0	9.0	10	0.6
C1	18.0	11.0	5.0	15	0.6
C2	18.0	13.0	7.0	15	0.6
C4	18.0	13.5	7.5	15	0.8
C5	18.0	14.5	8.5	15	0.8
C8	18.0	18.0	10.0	15	0.8
C7	18.0	18.0	9.0	15	0.8
D8	26.0	14.0	7.0	22.5	0.8
D1	26.0	17.0	8.5	22.5	0.8
D2	26.0	19.0	10.0	22.5	0.8
D3	26.0	20.0	11.0	22.5	0.8
D7	26.0	20.0	12.5	22.5	0.8
EC	32.0	18.0	9.0	27.5	0.8
E1	32.0	20.0	11.0	27.5	0.8
E2	32.0	22.0	13.0	27.5	0.8
ED	32.0	23.5	13.5	27.5	0.8
EE	32.0	24.5	15.0	27.5	0.8
E4	32.0	28.0	18.0	27.5	0.8
EF	32.0	29.5	16.5	27.5	0.8
EG	32.0	31.0	21.0	27.5	0.8
EH	32.0	31.0	31.0	27.5	0.8
EI	32.0	35.0	20.0	27.5	0.8
FJ	42.5	35.5	18.5	37.5	1.0
FM	42.5	38.5	21.5	37.5	1.0
F8	42.5	44.0	24.0	37.5	1.0
F9	42.5	45.0	30.0	37.5	1.0
G9	57.5	45.0	25.0	52.5	1.2
GA	57.5	45.0	30.0	52.5	1.2
GC	57.5	50.0	35.0	52.5	1.2

# DC FILTERING

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## POLYESTER DIELECTRIC FOR INDUSTRIAL DC FILTERING

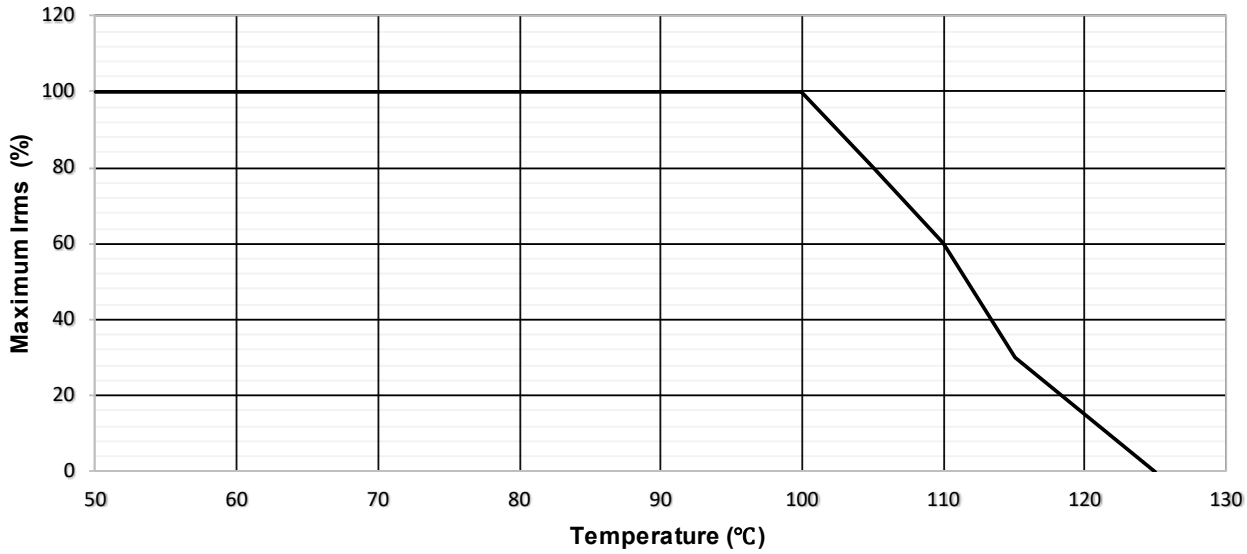
These capacitors have been designed primarily for medium power automotive DC filtering applications.

### ELECTRICAL CHARACTERISTICS – POLYESTER DIELECTRIC

Items	Characteristics
Reference Standard	IEC 61071, IEC 60384-2, AEC-Q200D
Climatic Category	40/125/56 IEC60068-1
Operating Temperature Range	-40~ +125°C
Rated Voltage	63Vdc ~ 1000Vdc
Capacitance Range	0.0047μF ~ 470μF
Capacitance Tolerance	±5% or ±10% at +25°C
Dissipation Factor (DF)	≤ 0.01 (1.0%) at 1 KHz. at +25°C
Test Voltage Between Terminals	1.5 x rated voltage for 10s (terminal to terminal)
Test Voltage Terminal to Case	2.0kVrms 50 Hz for 10 sec at +25°C
Insulation Resistance	>30,000 MΩ (C≤0.33μF) at 100VDC 1 minute at +25°C
	>10,000 MΩ (C>0.33μF) at 100VDC 1 minute at +25°C
Life Expectancy	100,000 hours at Un @ Hot-Spot temperature T=+70°C
Protection	Solvent resistant plastic case UL94 V-0
	Thermosetting resin sealing UL 94 V-0 compliant
Installation	Any position
Leads	Tinned copper wires or Copper-clad Steel Wire
Packaging	Packed in cardboard boxes with protection for the terminals
RoHS Compliant	Compliant with the restricted substance requirements of Directive 2002/95/EC
Storage Conditions	Storage time: ≤ 24 months from the date marked on the label package
	Temperature and relative humidity should be -10°C ~ +40°C and not more than 75%RH.
	RH ≤ 85% for 30 days randomly distributed throughout the year
Humidity Test	Test conditions & performance:
	Temperature: +40°C±2°C Relative humidity (RH) :93% ±2%
	Test duration: 56 days
	Capacitance change: ≤5% DF change (Δtgδ): ≤10 X 10 <sup>-3</sup> at 1KHz
Endurance Test	Insulation resistance: ≥50% of initial limit
	Test conditions & performance:
	Temperature: +105°C±2°C Voltage applied:1.25 X V <sub>R</sub> (d.c.)
	Test duration: 1000 hours
	Capacitance change: ≤5% DF change (Δ tgδ): ≤10 X 10 <sup>-3</sup> at 1KHz
Insulation resistance: ≥50% of initial limit	

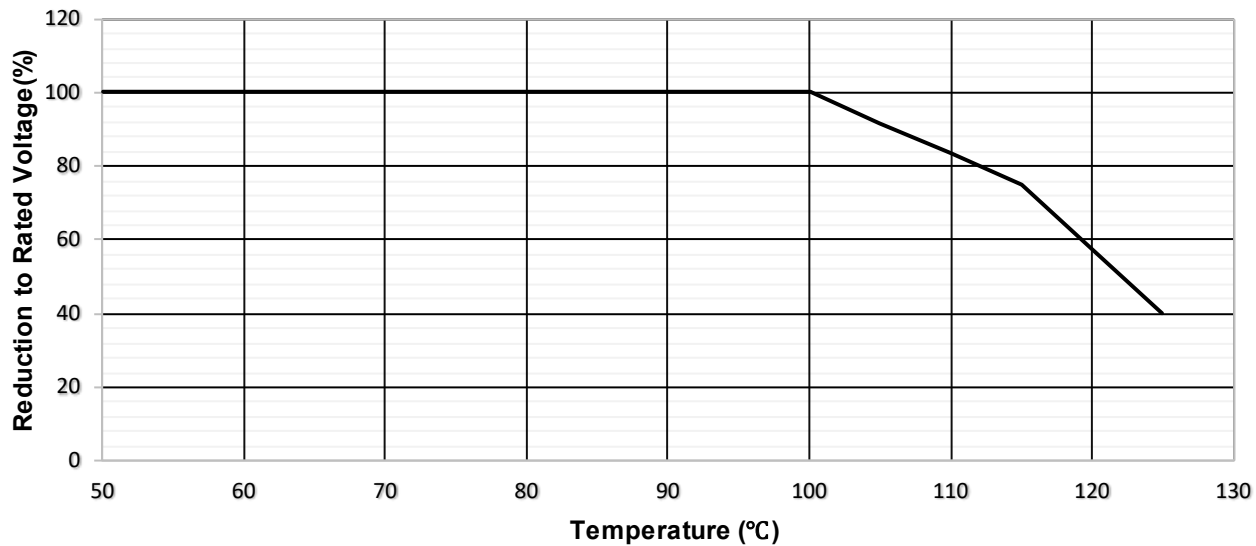
### MAXIMUM IRMS VS TEMPERATURE

Maximum Irms VS Temperature ( $T_h$ )



### VOLTAGE VS TEMPERATURE

Derating of Rated Voltage VS Temperature ( $T_h$ )



# DC FILTERING

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## HOT SPOT CALCULATION

See Hot Spot Temperature, page 2.

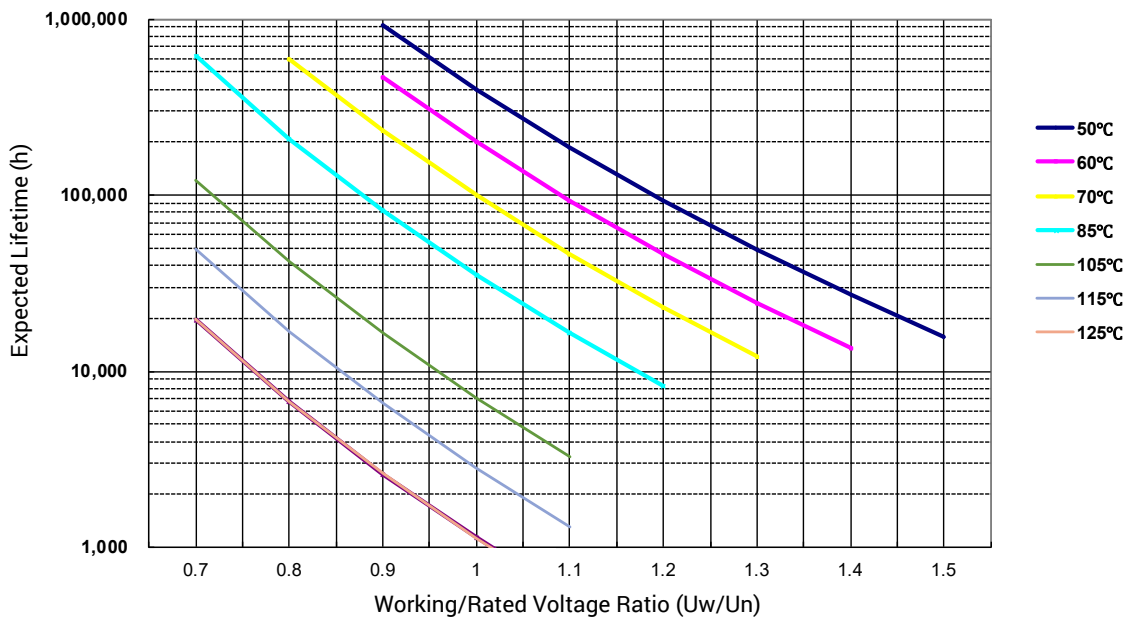
$$\theta_{\text{hot spot}} = \theta_{\text{ambient}} + (P_d + P_t) \times R_{\text{th}}$$

with  $P_d$  (Dielectric losses) =  $Q \times \text{tg}\delta_0$   
 $Q \times \text{tg}\delta_0 \Rightarrow [ \frac{1}{2} \times C_n \times (V_{\text{peak to peak}})^2 \times f ] \times \text{tg}\delta_0$   
 $\text{tg}\delta_0$  (tan delta)  
 For PET please refer to Polyester graphs.

$$P_t \text{ (Thermal losses)} = R_s \times (I_{\text{rms}})^2$$

where  $C_n$  in Farad     $I_{\text{rms}}$  in Ampere     $f$  in Hertz  
 $V$  in Volt     $R_s$  in Ohm     $\theta$  in °C  
 $R_{\text{th}}$  in °C/W

## TYPICAL LIFETIME\* CHARACTERISTICS



\*Lifetime is the number of operating hours required for the capacitor to lose 3% of its initial value.

## RATING & PART NUMBER REFERENCE

Cap	Rated Voltage	AVX PN	Voltage Code	Case Code	Dimensions					dv/dt	Peak Current	SPQ
					W ± 0.5	H ± 0.5	T ± 0.5	P1 ± 1.0	d ± 0.05			
uF	V				mm	mm	mm	mm	mm	V/us	A	pcs
					Voltage Vndc 63V							
										Voltage Code S		
1.5	63	FTA14S0155*025	S	A1	13.0	11.0	5.0	10	0.6	12	18	825
2.2	63	FTA24S0225*025	S	A2	13.0	12.0	6.0	10	0.6	12	26	675
3.3	63	FTA34S0335*025	S	A3	13.0	16.0	9.0	10	0.6	12	40	450
3.3	63	FTC24S0335*025	S	C2	18.0	13.0	7.0	15	0.8	8	26	414
4.7	63	FTA34S0475*025	S	A3	13.0	16.0	9.0	10	0.6	12	56	450
4.7	63	FTC44S0475*025	S	C4	18.0	13.5	7.5	15	0.8	8	38	396
6.8	63	FTC54S0685*025	S	C5	18.0	14.5	8.5	15	0.8	8	54	342

# DC FILTERING

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## RATING & PART NUMBER REFERENCE

Cap	Rated Voltage	AVX PN	Voltage Code	Case Code	Dimensions					dv/dt	Peak Current	SPQ
					W ± 0.5	H ± 0.5	T ± 0.5	P1 ± 1.0	d ± 0.05			
uF	V				mm	mm	mm	mm	mm	V/us	A	pcs
10.0	63	FTC74S0106*025	S	C7	18.0	18.0	9.0	15	0.8	8	80	324
15.0	63	FTD14S0156*025	S	D1	26.0	17.0	8.5	22.5	0.8	5	75	228
22.0	63	FTD24S0226*025	S	D2	26.0	19.0	10.0	22.5	0.8	5	110	192
18.0	63	FTEC4S0186*025	S	EC	32.0	18.0	9.0	27.5	0.8	3	54	180
22.0	63	FTE14S0226*025	S	E1	32.0	20.0	11.0	27.5	0.8	3	66	150
27.0	63	FTE14S0276*025	S	E1	32.0	20.0	11.0	27.5	0.8	3	81	150
33.0	63	FTE24S0336*025	S	E2	32.0	22.0	13.0	27.5	0.8	3	99	120
39.0	63	FTE24S0396*025	S	E2	32.0	22.0	13.0	27.5	0.8	3	117	120
47.0	63	FTEE4S0476*025	S	EE	32.0	24.5	15.0	27.5	0.8	3	141	110
56.0	63	FTE44S0566*025	S	E4	32.0	28.0	18.0	27.5	0.8	3	168	90
68.0	63	FTE44S0686*025	S	E4	32.0	28.0	18.0	27.5	0.8	3	204	90
82.0	63	FTEG4S0826*025	S	EG	32.0	31.0	21.0	27.5	0.8	3	246	80
100.0	63	FTEG4S0107*025	S	EG	32.0	31.0	21.0	27.5	0.8	3	300	80
100.0	63	FTFJ4S0107*025	S	FJ	42.5	35.5	18.5	37.5	1.0	0.8	80	56
120.0	63	FTFJ4S0127*025	S	FJ	42.5	35.5	18.5	37.5	1.0	0.8	96	56
150.0	63	FTFJ4S0157*025	S	FJ	42.5	35.5	18.5	37.5	1.0	0.8	120	56
180.0	63	FTFM4S0187*025	S	FM	42.5	38.5	21.5	37.5	1.0	0.8	144	49
220.0	63	FTF84S0227*025	S	F8	42.5	44.0	24.0	37.5	1.0	0.8	176	49
270.0	63	FTF94S0277*025	S	F9	42.5	45.0	30.0	37.5	1.0	0.8	216	35
330.0	63	FTF94S0337*025	S	F9	42.5	45.0	30.0	37.5	1.0	0.8	264	35
220.0	63	FTG94S0227*025	S	G9	57.5	45.0	25.0	52.5	1.2	0.2	44	30
270.0	63	FTG94S0277*025	S	G9	57.5	45.0	25.0	52.5	1.2	0.2	54	30
330.0	63	FTG94S0337*025	S	G9	57.5	45.0	25.0	52.5	1.2	0.2	66	30
390.0	63	FTGA4S0397*025	S	GA	57.5	45.0	30.0	52.5	1.2	0.2	78	25
470.0	63	FTGC4S0477*025	S	GC	57.5	50.0	35.0	52.5	1.2	0.2	94	20
560.0	63	FTGC4S0567*025	S	GC	57.5	50.0	35.0	52.5	1.2	0.2	112	20
Voltage Vndc 100V					Voltage Code T							
1.0	100	FTC14T0105*025	T	C1	18.0	11.0	5.0	10	0.6	10	10	594
1.5	100	FTC24T0155*025	T	C2	18.0	13.0	7.0	10	0.8	10	15	414
2.2	100	FTC24T0225*025	T	C2	18.0	13.0	7.0	10	0.8	10	22	414
3.3	100	FTC54T0335*025	T	C5	18.0	14.5	8.5	15	0.8	10	33	342
4.7	100	FTC54T0475*025	T	C5	18.0	14.5	8.5	15	0.8	10	47	342
4.7	100	FTD14T0475*025	T	D1	26.0	17.0	8.5	22.5	0.8	6	28	228
6.8	100	FTD14T0685*025	T	D1	26.0	17.0	8.5	22.5	0.8	6	41	228
10.0	100	FTD24T0106*025	T	D2	26.0	19.0	10.0	22.5	0.8	6	60	192
15.0	100	FTD24T0156*025	T	D2	26.0	19.0	10.0	22.5	0.8	6	90	192
15.0	100	FTE14T0156*025	T	E1	32.0	20.0	11.0	27.5	0.8	5	75	150
18.0	100	FTE24T0186*025	T	E2	32.0	22.0	13.0	27.5	0.8	5	90	120
22.0	100	FTE24T0226*025	T	E2	32.0	22.0	13.0	27.5	0.8	5	110	120
27.0	100	FTEE4T0276*025	T	EE	32.0	24.5	15.0	27.5	0.8	5	135	110
33.0	100	FTE44T0336*025	T	E4	32.0	28.0	18.0	27.5	0.8	5	165	90
39.0	100	FTE44T0396*025	T	E4	32.0	28.0	18.0	27.5	0.8	5	195	90
47.0	100	FTEG4T0476*025	T	EG	32.0	31.0	21.0	27.5	0.8	5	235	80
56.0	100	FTEG4T0566*025	T	EG	32.0	31.0	21.0	27.5	0.8	5	280	80
56.0	100	FTFJ4T0566*025	T	FJ	42.5	35.5	18.5	37.5	1.0	1	56	56
68.0	100	FTFJ4T0686*025	T	FJ	42.5	35.5	18.5	37.5	1.0	1	68	56
82.0	100	FTFJ4T0826*025	T	FJ	42.5	35.5	18.5	37.5	1.0	1	82	56
100.0	100	FTFM4T0107*025	T	FM	42.5	38.5	21.5	37.5	1.0	1	100	49
120.0	100	FTF84T0127*025	T	F8	42.5	44.0	24.0	37.5	1.0	1	120	49
150.0	100	FTF94T0157*025	T	F9	42.5	45.0	30.0	37.5	1.0	1	150	35
180.0	100	FTF94T0187*025	T	F9	42.5	45.0	30.0	37.5	1.0	1	180	35
120.0	100	FTG94T0127*025	T	G9	57.5	45.0	25.0	52.5	1.2	0.3	36	30
150.0	100	FTG94T0157*025	T	G9	57.5	45.0	25.0	52.5	1.2	0.3	45	30



# DC FILTERING

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## RATING & PART NUMBER REFERENCE

Cap	Rated Voltage	AVX PN	Voltage Code	Case Code	Dimensions					dv/dt	Peak Current	SPQ
					W ± 0.5	H ± 0.5	T ± 0.5	P1 ± 1.0	d ± 0.05			
uF	V				mm	mm	mm	mm	mm	V/us	A	pcs
180.0	100	FTG94T0187*025	T	G9	57.5	45.0	25.0	52.5	1.2	0.3	54	30
220.0	100	FTGA4T0227*025	T	GA	57.5	45.0	30.0	52.5	1.2	0.3	66	25
270.0	100	FTGC4T0277*025	T	GC	57.5	50.0	35.0	52.5	1.2	0.3	81	20
330.0	100	FTGC4T0337*025	T	GC	57.5	50.0	35.0	52.5	1.2	0.3	99	20
<b>Voltage Vndc 160V</b>					<b>Voltage Code F</b>							
4.7	160	FTEC4F0475*025	F	EC	32.0	18.0	9.0	27.5	0.8	6	28	180
6.8	160	FTE14F0685*025	F	E1	32.0	20.0	11.0	27.5	0.8	6	41	150
10.0	160	FTE14F0106*025	F	E1	32.0	20.0	11.0	27.5	0.8	6	60	150
15.0	160	FTE24F0156*025	F	E2	32.0	22.0	13.0	27.5	0.8	6	90	120
18.0	160	FTEE4F0186*025	F	EE	32.0	24.5	15.0	27.5	0.8	6	108	110
22.0	160	FTE44F0226*025	F	E4	32.0	28.0	18.0	27.5	0.8	6	132	90
27.0	160	FTE44F0276*025	F	E4	32.0	28.0	18.0	27.5	0.8	6	162	90
33.0	160	FTEH4F0336*025	F	EH	32.0	31.0	31.0	27.5	0.8	6	198	50
33.0	160	FTFJ4F0336*025	F	FJ	42.5	35.5	18.5	37.5	1.0	2	66	56
39.0	160	FTFJ4F0396*025	F	FJ	42.5	35.5	18.5	37.5	1.0	2	78	56
47.0	160	FTFJ4F0476*025	F	FJ	42.5	35.5	18.5	37.5	1.0	2	94	56
56.0	160	FTFM4F0566*025	F	FM	42.5	38.5	21.5	37.5	1.0	2	112	49
68.0	160	FTFM4F0686*025	F	FM	42.5	38.5	21.5	37.5	1.0	2	136	49
82.0	160	FTF84F0826*025	F	F8	42.5	44.0	24.0	37.5	1.0	2	164	49
100.0	160	FTF94F0107*025	F	F9	42.5	45.0	30.0	37.5	1.0	2	200	35
120.0	160	FTF94F0127*025	F	F9	42.5	45.0	30.0	37.5	1.0	2	240	35
82.0	160	FTG94F0826*025	F	G9	57.5	45.0	25.0	52.5	1.2	0.4	33	30
100.0	160	FTG94F0107*025	F	G9	57.5	45.0	25.0	52.5	1.2	0.4	40	30
120.0	160	FTG94F0127*025	F	G9	57.5	45.0	25.0	52.5	1.2	0.4	48	30
150.0	160	FTGA4F0157*025	F	GA	57.5	45.0	30.0	52.5	1.2	0.4	60	25
180.0	160	FTGC4F0187*025	F	GC	57.5	50.0	35.0	52.5	1.2	0.4	72	20
220.0	160	FTGC4F0227*025	F	GC	57.5	50.0	35.0	52.5	1.2	0.4	88	20
<b>Voltage Vndc 250V</b>					<b>Voltage Code D</b>							
0.15	250	FTA14D0154*025	D	A1	13.0	11.0	5.0	10	0.6	36	5.4	825
0.22	250	FTA24D0224*025	D	A2	13.0	12.0	6.0	10	0.6	36	7.9	675
0.33	250	FTA24D0334*025	D	A2	13.0	12.0	6.0	10	0.6	36	12	675
0.33	250	FTC14D0334*025	D	C1	18.0	11.0	5.0	15	0.6	20	6.6	594
0.47	250	FTA34D0474*025	D	A3	13.0	16.0	9.0	10	0.6	36	17	450
0.47	250	FTC24D0474*025	D	C2	18.0	13.0	7.0	15	0.6	20	9.4	414
0.68	250	FTC44D0684*025	D	C4	18.0	13.5	7.5	15	0.8	20	14	396
1.0	250	FTC54D0105*025	D	C5	18.0	14.5	8.5	15	0.8	20	20	342
1.5	250	FTC84D0155*025	D	C8	18.0	18.0	10.0	15	0.8	20	30	288
1.5	250	FTD14D0155*025	D	D1	26.0	17.0	8.5	22.5	0.8	12	18	228
2.2	250	FTD24D0225*025	D	D2	26.0	19.0	10.0	22.5	0.8	12	26	192
3.3	250	FTD74D0335*025	D	D7	26.0	20.0	12.5	22.5	0.8	12	40	144
4.7	250	FTE14D0475*025	D	E1	32.0	20.0	11.0	27.5	0.8	8	38	150
6.8	250	FTE24D0685*025	D	E2	32.0	22.0	13.0	27.5	0.8	8	54	120
10.0	250	FTEE4D0106*025	D	EE	32.0	24.5	15.0	27.5	0.8	8	80	110
15.0	250	FTE44D0156*025	D	E4	32.0	28.0	18.0	27.5	0.8	8	120	90
18.0	250	FTEG4D0186*025	D	EG	32.0	31.0	21.0	27.5	0.8	8	144	80
18.0	250	FTFJ4D0186*025	D	FJ	42.5	35.5	18.5	37.5	1.0	3	54	56
22.0	250	FTFJ4D0226*025	D	FJ	42.5	35.5	18.5	37.5	1.0	3	66	56
27.0	250	FTFJ4D0276*025	D	FJ	42.5	35.5	18.5	37.5	1.0	3	81	56
33.0	250	FTFM4D0336*025	D	FM	42.5	38.5	21.5	37.5	1.0	3	99	49
39.0	250	FTFM4D0396*025	D	FM	42.5	38.5	21.5	37.5	1.0	3	117	49
47.0	250	FTF84D0476*025	D	F8	42.5	44.0	24.0	37.5	1.0	3	141	49
56.0	250	FTF94D0566*025	D	F9	42.5	45.0	30.0	37.5	1.0	3	168	35
68.0	250	FTF94D0686*025	D	F9	42.5	45.0	30.0	37.5	1.0	3	204	35



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# DC FILTERING

FT - 1820 \*RoHS Compliant



## RATING & PART NUMBER REFERENCE

Cap	Rated Voltage	AVX PN	Voltage Code	Case Code	Dimensions					dv/dt	Peak Current	SPQ
					W ± 0.5	H ± 0.5	T ± 0.5	P1 ± 1.0	d ± 0.05			
uF	V				mm	mm	mm	mm	mm	V/us	A	pcs
56.0	250	FTG94D0566*025	D	G9	57.5	45.0	25.0	52.5	1.2	1	56	30
68.0	250	FTG94D0686*025	D	G9	57.5	45.0	25.0	52.5	1.2	1	68	30
82.0	250	FTG94D0826*025	D	G9	57.5	45.0	25.0	52.5	1.2	1	82	30
100.0	250	FTGA4D0107*025	D	GA	57.5	45.0	30.0	52.5	1.2	1	100	25
120.0	250	FTGC4D0127*025	D	GC	57.5	50.0	35.0	52.5	1.2	1	120	20
<b>Voltage Vndc 400V</b>												
					<b>Voltage Code I</b>							
0.068	400	FTA14I0683*025	I	A1	13.0	11.0	5.0	10	0.6	52	3.5	825
0.10	400	FTA24I0104*025	I	A2	13.0	12.0	6.0	10	0.6	52	5.2	675
0.15	400	FTA34I0154*025	I	A3	13.0	16.0	9.0	10	0.6	52	7.8	450
0.15	400	FTC24I0154*025	I	C2	18.0	13.0	7.0	15	0.6	32	4.8	414
0.22	400	FTA34I0224*025	I	A3	13.0	16.0	9.0	10	0.6	52	11	450
0.22	400	FTC24I0224*025	I	C2	18.0	13.0	7.0	15	0.6	32	7.0	414
0.33	400	FTC44I0334*025	I	C4	18.0	13.5	7.5	15	0.8	32	11	396
0.47	400	FTC74I0474*025	I	C7	18.0	18.0	9.0	15	0.8	32	15	324
0.68	400	FTD14I0684*025	I	D1	26.0	17.0	8.5	22.5	0.8	18	12	228
1.0	400	FTD24I0105*025	I	D2	26.0	19.0	10.0	22.5	0.8	18	18	192
1.5	400	FTD34I0155*025	I	D3	26.0	20.0	11.0	22.5	0.8	18	27	180
1.5	400	FTE14I0155*025	I	E1	32.0	20.0	11.0	27.5	0.8	14	21	150
2.2	400	FTED4I0225*025	I	ED	32.0	23.5	13.5	27.5	0.8	14	31	110
3.3	400	FTEE4I0335*025	I	EE	32.0	24.5	15.0	27.5	0.8	14	46	110
4.7	400	FTE44I0475*025	I	E4	32.0	28.0	18.0	27.5	0.8	14	66	90
<b>Voltage Vndc 630V</b>												
					<b>Voltage Code E</b>							
0.022	630	FTA14E0223*025	E	A1	13.0	11.0	5.0	10	0.6	70	1.5	825
0.033	630	FTA24E0333*025	E	A2	13.0	12.0	6.0	10	0.6	70	2.3	675
0.033	630	FTC14E0333*025	E	C1	18.0	11.0	5.0	15	0.6	66	2.2	594
0.047	630	FTA24E0473*025	E	A2	13.0	12.0	6.0	10	0.6	70	3.3	675
0.047	630	FTC24E0473*025	E	C2	18.0	13.0	7.0	15	0.6	66	3.1	414
0.068	630	FTC44E0683*025	E	C4	18.0	13.5	7.5	15	0.8	66	4.5	396
0.10	630	FTC44E0104*025	E	C4	18.0	13.5	7.5	15	0.8	66	6.6	396
0.10	630	FTD84E0104*025	E	D8	26.0	14.0	7.0	22.5	0.8	38	3.8	276
0.15	630	FTD14E0154*025	E	D1	26.0	17.0	8.5	22.5	0.8	38	5.7	228
0.22	630	FTD14E0224*025	E	D1	26.0	17.0	8.5	22.5	0.8	38	8.4	228
0.33	630	FTE14E0334*025	E	E1	32.0	20.0	11.0	27.5	0.8	28	9.2	150
0.47	630	FTE14E0474*025	E	E1	32.0	20.0	11.0	27.5	0.8	28	13	150
0.68	630	FTED4E0684*025	E	ED	32.0	23.5	13.5	27.5	0.8	28	19	110
1.0	630	FTEE4E0105*025	E	EE	32.0	24.5	15.0	27.5	0.8	28	28	110
1.5	630	FTE44E0155*025	E	E4	32.0	28.0	18.0	27.5	0.8	28	42	90
<b>Voltage Vndc 1000V</b>												
					<b>Voltage Code K</b>							
0.0047	1000	FTA14K0472*025	K	A1	13.0	11.0	5.0	10	0.6	260	1.2	825
0.0068	1000	FTA24K0682*025	K	A2	13.0	12.0	6.0	10	0.6	260	1.8	675
0.010	1000	FTC14K0103*025	K	C1	18.0	11.0	5.0	15	0.6	130	1.3	594
0.015	1000	FTC24K0153*025	K	C2	18.0	13.0	7.0	15	0.6	130	2.0	414
0.022	1000	FTC44K0223*025	K	C4	18.0	13.5	7.5	15	0.8	130	2.9	396
0.033	1000	FTC54K0333*025	K	C5	18.0	14.5	8.5	15	0.8	130	4.3	342
0.033	1000	FTD84K0333*025	K	D8	26.0	14.0	7.0	22.5	0.8	68	2.2	276
0.047	1000	FTD14K0473*025	K	D1	26.0	17.0	8.5	22.5	0.8	68	3.2	228
0.068	1000	FTD14K0683*025	K	D1	26.0	17.0	8.5	22.5	0.8	68	4.6	228
0.10	1000	FTD24K0104*025	K	D2	26.0	19.0	10.0	22.5	0.8	68	6.8	192
0.15	1000	FTE14K0154*025	K	E1	32.0	20.0	11.0	27.5	0.8	50	7.5	150
0.22	1000	FTED4K0224*025	K	ED	32.0	23.5	13.5	27.5	0.8	50	11	110
0.33	1000	FTEF4K0334*025	K	EF	32.0	29.5	16.5	27.5	0.8	50	17	100
0.47	1000	FTEI4K0474*025	K	EI	32.0	35.0	20.0	27.5	0.8	50	24	80

