

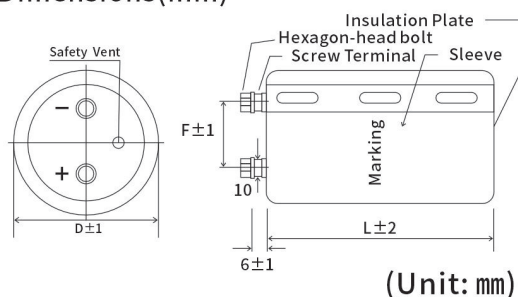
TF 系列 SERIES

- 2000h at 85°C
- Standard 85°C
- High ripple current
- Power supplies & Inverters



Items	Characteristics	
Operating Temperature Range(°C)	-40~+85	-25~+85
Voltage Range (V)	10~100	160~500
Capacitance Range (μF)	270~820000	
Capacitance Tolerance(20°C,120Hz)	±20%	
Leakage Current (μA)	10~500V	
	I ≤ 0.01CV or 5000μA whichever is smaller After 5 minute at 20°C application of rated voltage	
	I:Max. leakage current (μA),C:Nominal Capacitance (μF),V:Rated Voltage (V)	
Dissipation Factor (20°C,120Hz)	Less than values shown in the standard ratings	
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated rippled current is applied for 2000 hours at 85°C	
	Capacitance change	Within ±20%initial value
	D.F.(Tanδ)	Not more than 200% of specified value
	Leakage current	Not more than specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied .	
	Capacitance change	≤ ± 20% of the initial value
	D.F.(Tanδ)	≤200% of specified value
	Leakage current	≤200% of specified value

◆ Dimensions(mm)



ΦD	50.8	63.5	76	89	100
F	22	28	32	32	42

◆ Frequency Coefficient

Frequency Voltage Range (V)	50/60Hz	120Hz	300Hz	1KHz	≥10KHz
10~50	0.95	1.00	1.04	1.10	1.15
63~100	0.95	1.00	1.06	1.16	1.30
160~500	0.80	1.00	1.10	1.25	1.50

◆ Temperature Coefficient

Temperature(°C)	+40	+60	+70	+85
Coefficient	2.70	2.00	1.70	1.00

◆ Ratings for TF Series

UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Dissipation Factor 20°C 120Hz tanδ	Rated Ripple Current 85°C 120Hz (Arms)	Size φD×L (mm)
10(13)1A	100000	0.80	8.8	50.8×60
	120000	0.80	10.0	50.8×60
	150000	1.00	10.8	50.8×70
	180000	1.00	11.2	50.8×80
	220000	1.50	12.0	50.8×95
	270000	1.50	12.8	50.8×105
	330000	1.50	15.3	50.8×130
	390000	1.50	17.3	63.5×95
	470000	2.00	18.0	63.5×115
	560000	2.00	19.0	63.5×130
16(20)1C	680000	2.00	21.7	76×115
	820000	2.00	24.7	76×130
	100000	0.80	9.5	50.8×60
	120000	0.80	10.9	50.8×70
	150000	1.00	11.3	50.8×80
	180000	1.00	12.8	50.8×95
	220000	1.00	15.3	50.8×105
	270000	1.00	16.8	50.8×130
	330000	1.50	17.6	63.5×95
	390000	1.50	18.3	63.5×115
25(32)1E	470000	1.50	21.3	63.5×130
	560000	1.50	23.6	76×115
	680000	1.50	27.6	76×130
	820000	2.00	28.0	76×155
	68000	0.60	9.2	50.8×60
	82000	0.60	10.4	50.8×70
	100000	0.60	11.0	50.8×80
	120000	0.80	11.7	50.8×95
	150000	0.80	14.1	50.8×115
	180000	0.80	15.7	50.8×130
35(44)1V	220000	1.00	16.1	63.5×95
	270000	1.00	18.6	63.5×115
	330000	1.00	21.9	76×115
	390000	1.20	22.0	76×130
	470000	1.20	25.6	76×155
	560000	1.20	27.9	89×130
	680000	1.20	32.5	89×155
	47000	0.50	8.7	50.8×60
	56000	0.60	9.2	50.8×70
	68000	0.60	9.8	50.8×80
50(63)1H	82000	0.60	11.6	50.8×95
	100000	0.60	13.3	50.8×115
	120000	0.80	14.8	50.8×130
	150000	0.80	14.9	63.5×95
	180000	0.80	17.0	63.5×115
	220000	0.80	20.0	63.5×130
	270000	0.80	20.3	76×115
	330000	0.80	23.5	76×130
	390000	0.80	26.4	76×155
	470000	0.80	29.6	89×130
50(63)1H	270000	0.40	7.1	50.8×60
	33000	0.40	7.6	50.8×70
	39000	0.50	8.1	50.8×80
	47000	0.50	9.3	50.8×95
	56000	0.50	10.5	50.8×115
	68000	0.50	12.0	50.8×130
	82000	0.50	13.7	63.5×95
	100000	0.60	14.7	63.5×115
	120000	0.60	16.7	63.5×130
	150000	0.60	19.3	76×115
50(63)1H	180000	0.60	21.9	76×130
	220000	0.60	23.5	76×155
	270000	0.60	24.6	89×155

UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Dissipation Factor 20°C 120Hz tanδ	Rated Ripple Current 85°C 120Hz (Arms)	Size φD×L (mm)
63(79)1J	18000	0.30	6.7	50.8×60
	22000	0.30	7.4	50.8×70
	27000	0.40	7.8	50.8×80
	33000	0.40	8.4	50.8×95
	39000	0.40	9.5	50.8×115
	47000	0.40	11.3	50.8×130
	56000	0.40	12.8	63.5×95
	68000	0.50	13.6	63.5×115
	82000	0.50	14.5	63.5×130
	100000	0.50	16.7	76×115
80(100)1K	120000	0.50	18.9	76×130
	150000	0.50	22.4	76×155
	180000	0.60	22.4	89×130
	220000	0.60	26.2	89×155
	12000	0.25	5.9	50.8×60
	15000	0.25	6.8	50.8×70
	18000	0.25	7.8	50.8×80
	22000	0.30	8.0	50.8×95
	27000	0.30	9.2	50.8×115
	33000	0.30	10.5	50.8×130
100(125)2A	39000	0.30	12.0	63.5×95
	47000	0.30	12.8	63.5×115
	56000	0.40	13.4	63.5×130
	68000	0.40	15.4	76×115
	82000	0.40	17.5	76×130
	100000	0.40	20.5	76×155
	120000	0.40	22.4	89×130
	150000	0.40	26.5	89×155
	8200	0.25	5.1	50.8×60
	10000	0.25	5.9	50.8×70
160(200)2C	12000	0.25	6.4	50.8×80
	15000	0.25	7.0	50.8×95
	18000	0.25	8.3	50.8×115
	22000	0.25	10.0	50.8×130
	27000	0.25	11.5	63.5×95
	33000	0.25	11.9	63.5×115
	39000	0.25	13.4	63.5×130
	47000	0.35	14.2	76×115
	56000	0.35	16.0	76×130
	68000	0.35	18.8	76×155
200(250)2D	82000	0.35	20.5	89×130
	100000	0.35	24.0	89×155
	3900	0.25	5.3	50.8×70
	4700	0.25	5.9	50.8×80
	5600	0.25	7.0	50.8×95
	6800	0.25	7.8	50.8×115
	8200	0.25	9.1	50.8×130
	10000	0.25	10.4	63.5×95
	12000	0.25	11.3	63.5×115
	15000	0.25	14.3	63.5×130
200(250)2D	18000	0.25	15.6	76×115
	22000	0.25	18.3	76×130
	27000	0.25	20.2	76×155
	33000	0.25	23.8	89×130
	39000	0.25	27.9	89×155
	3300	0.25	4.9	50.8×70
	3900	0.25	5.3	50.8×80
	4700	0.25	6.4	50.8×95
	5600	0.25	7.6	50.8×115
	6800	0.25	8.8	50.8×130
200(250)2D	8200	0.25	9.4	63.5×95
	10000	0.25	10.4	63.5×115
	12000	0.25	12.1	63.5×130
	15000	0.25	14.4	76×115
	18000	0.25	16.5	76×130
	22000	0.25	19.6	76×155
	27000	0.25	21.5	89×130
	33000	0.25	25.3	89×155

◆ Ratings for TF Series

UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Dissipation Factor 20°C 120Hz tanδ	Rated Ripple Current 85°C 120Hz (A rms)	Size φD × L (mm)
250 (300)2E	2200	0.25	4.0	50.8 × 70
	2700	0.25	4.4	50.8 × 80
	3300	0.25	5.4	50.8 × 95
	3900	0.25	6.3	50.8 × 115
	4700	0.25	7.1	50.8 × 130
	5600	0.25	7.8	63.5 × 95
	6800	0.25	9.1	63.5 × 115
	8200	0.25	10	63.5 × 130
	10000	0.25	11.7	76 × 115
	12000	0.25	12.9	76 × 130
	15000	0.25	15.1	76 × 155
	18000	0.25	17.7	89 × 130
	22000	0.25	20.9	89 × 155
350 (400)2V	1000	0.20	3.4	50.8 × 60
	1200	0.20	3.8	50.8 × 60
	1500	0.20	4.3	50.8 × 70
	1800	0.20	5.1	50.8 × 80
	2200	0.20	5.7	50.8 × 95
	2700	0.20	7.1	50.8 × 115
	3300	0.20	7.9	50.8 × 130
	3900	0.20	9.0	63.5 × 95
	4700	0.20	10.3	63.5 × 115
	5600	0.20	11.4	63.5 × 130
	6800	0.20	13.1	76 × 115
	8200	0.20	15.4	76 × 130
	10000	0.20	18.1	76 × 155
	12000	0.20	20.0	89 × 155
	15000	0.20	24.5	89 × 170
	18000	0.20	28.8	89 × 195
400 (450)2G	1000	0.20	3.5	50.8 × 60
	1200	0.20	3.8	50.8 × 70
	1500	0.20	4.7	50.8 × 80
	1800	0.20	5.2	50.8 × 95
	2200	0.20	6.4	50.8 × 115
	2700	0.20	7.0	63.5 × 95
	3300	0.20	8.2	63.5 × 115
	3900	0.20	9.4	63.5 × 130
	4700	0.20	10.4	76 × 115
	5600	0.20	11.9	76 × 130
	6800	0.20	14.1	76 × 155
	8200	0.20	16.4	89 × 130
	10000	0.20	18.3	89 × 155
	12000	0.20	21.8	89 × 195
	15000	0.20	26.3	89 × 235
450 (500)2W	1000	0.25	3.5	50.8 × 70
	1200	0.25	4.2	50.8 × 80
	1500	0.25	5.0	50.8 × 95
	1800	0.25	5.9	50.8 × 115
	2200	0.25	6.3	50.8 × 130
	2700	0.25	7.5	63.5 × 95
	3300	0.25	8.7	63.5 × 115
	3900	0.25	9.5	76 × 115
	4700	0.25	10.9	76 × 130
	5600	0.25	12.8	76 × 155
	6800	0.25	15.0	89 × 130
	8200	0.25	16.5	89 × 155
	10000	0.25	20.0	89 × 195
	12000	0.25	23.6	89 × 235

UR (Surge Voltage) Code (V)	Rated Capacitance (μF)	Dissipation Factor 20°C 120Hz tanδ	Rated Ripple Current 85°C 120Hz (A rms)	Size φD × L (mm)
500 (550)2H	1200	0.25	6.2	50.8 × 95
	1500	0.25	7.1	50.8 × 115
	1800	0.25	8.3	50.8 × 130
	2200	0.25	9.6	63.5 × 95
	2700	0.25	10.7	63.5 × 115
	3300	0.25	12.4	76 × 115
	3900	0.25	14.4	76 × 130
	4700	0.25	15.8	76 × 155
	5600	0.25	18.6	89 × 130
	6800	0.25	21.2	89 × 155
	8200	0.25	24.2	89 × 170
	10000	0.25	27.9	89 × 195
	12000	0.25	33.1	89 × 235