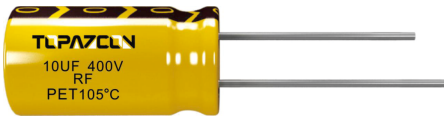
RF Series

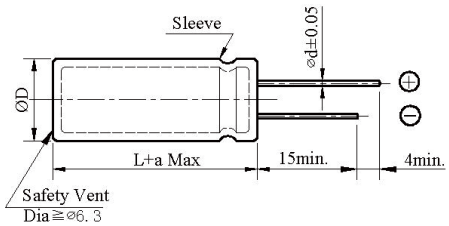
- **Long life, better performance, cost effective**
- **Load life 5,000～7,000 hours at 105℃**
- **RoHS Compliant**

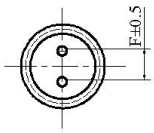


◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-40 ~ +105℃
Working Voltage Range	160 ~ 450Vdc
Capacitance Range	1 ~ 150μF
Capacitance Tolerance	±20% (at 20℃ and 120Hz)
Dissipation Factor (tanδ) (at 20℃, 120Hz)	Rated Voltage (V): 160 / 200 / 250 / 350 / 400 / 450 tanδ(Max): 0.15 / 0.15 / 0.15 / 0.20 / 0.20 / 0.20
Leakage Current	160~400Vdc: I≤0.02CV+ 10μA (2minutes) 450Vdc: I≤0.03CV+ 10μA (2minutes) I: Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V)
Low Temperature Characteristics Impedance Ratio(MAX)	Rated Voltage (V): 160 / 200 / 250 / 350 / 400 / 450 Z(-25℃)/Z(+20℃): 3 / 3 / 3 / 5 / 5 / 6 Z(-40℃)/Z(+20℃): 6 / 6 / 6 / 6 / 6 / 9 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 5,000 to 7,000 hours at 105°C. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20℃ after the rated voltage applied for 1,000 hours at 105℃ without voltage applied. Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ 200% of the specified value

◆ DIMENSIONS (mm)





ΦD	5	6.3	8	10	12.5	16	18
ΦD	ΦD +0.5 Max						
Φd	0.5	0.5	0.5/0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
a	L+2.0 Max						

◆ PART NUMBER SYSTEM(Example : 400V 10μF)

E	R	F	2	G	1	0	0	M	1	0	2	0	0	0	Y

- Sleeve code(Yellow)
- Lead length code
- Lead forming Type code
- Size code(1020 : 10×20)
- Capacitance tolerance code(M:±20%)
- Capacitance code (10μF)
- Voltage code(400V)
- Series code(RF)
- Category code(E)

RF Series

◆ **Case size & Permissible rated ripple current: (mArms) at 105℃ / 100KHz**

Vdc / μF	160		200		250	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
1.0	6.3×11	40	6.3×11	42	6.3×11	46
1.5	6.3×11	50	6.3×11	54	6.3×11	58
1.8	6.3×11	56	6.3×11	60	6.3×11	63
2.2	6.3×11	60	6.3×11	68	6.3×11	75
2.8	6.3×11	68	6.3×11	71	6.3×11	78
3.3	6.3×11	72	6.3×11	80	6.3×11	83
4.7	6.3×11	75	6.3×11	90	6.3×11	91
5.6	6.3×11	79	8×12	98	8×12	105
6.8	8×12	96	8×12	110	8×12	109
8.2	8×12	110	8×12	115	8×12	118
10	8×12	206	8×12	210	8×16	215
15	8×12	230	8×16	250	8×20	310
22	8×16	340	8×20	400	10×16	405
33	10×16	420	10×20	450	10×20	530
47	10×16	460	12.5×16	610	12.5×20	625
68	12.5×16	570	12.5×20	635	12.5×25	720
100	12.5×20	680	12.5×25	730	16×25	880
150	16×20	760	16×25	855	16×30	1030

Vdc / μF	350		400		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
1.0	6.3×11	58	6.3×11	72	8×12	76
1.5	6.3×11	72	6.3×11	78	8×12	80
1.8	6.3×11	80	6.3×11	85	8×12	90
2.2	6.3×11	90	6.3×11	95	8×12	103
2.8	8×12	106	8×12	107	8×12	115
3.3	8×12	110	8×12	112	8×12	128
4.7	8×12	115	8×12	118	8×16	132
5.6	8×12	130	8×16	145	8×20	155
6.8	8×16	160	8×20	170	10×16	180
8.2	8×20	189	10×16	200	10×20	220
10	10×16	230	10×20	260	12.5×16	280
15	10×20	300	10×20	320	12.5×20	350
22	12.5×16	390	12.5×20	420	12.5×25	450
33	12.5×20	515	12.5×25	540	16×25	560
47	16×20	650	16×25	680	16×30	700
68	16×25	725	18×25	800	18×30	820
82	18×25	910	18×30	950	18×35	970
100	18×30	980	18×35	1000	18×40	1050

◆ **RIPPLE CURRENT MULTIPLIERS**

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	100K
160 ~ 450	0.45	0.50	0.80	0.90	1.00