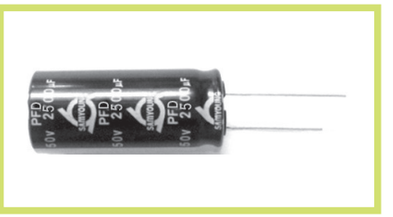
PFD Series

• 135℃ 2,000Hrs, 125℃ 5,000Hrs assured.

- Low ESR.
- Wide Temperature range.
- Suitable to fit for automotive equipment.
- RoHS compliant.
- Halogen-free capacitors are also available.

PFA → PFD

High ripple, Downsized

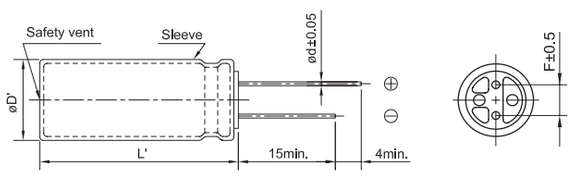


SPECIFICATIONS

Item	Characteristics
Rated Voltage Range	50 ~ 80 V_{DC}
Operating Temperature Range	-40 ~ +135℃
Capacitance Tolerance	±20%(M) (at 20℃,120Hz)
Leakage Current	I = 0.03CV (μA) or 4μA, whichever is greater. Where, I:Max. Leakage current(μA),C:Nominal capacitance(μF),V:Rated voltage(V_{DC}) (at 20℃, 1 minute)
Dissipation Factor(Tanδ)	Rated Voltage(V_{DC}) 50~80 Tanδ(Max.) 0.10 When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. (at 20℃,120Hz)
Temperature Characteristics (Max. Impedance ratio)	Rated Voltage(VDC) 50~80 Z(-25℃)/Z(+20℃) 3 Z(-40℃)/Z(+20℃) 6 (at 120Hz)
Load Life	The following specifcations shall be satisfied when the capacitors are restored to 20℃ after the rated voltage with the rated ripple current is applied (the peak volrage shall not exceed the rated voltage) for 2,000 hours at 135℃, 5,000 hours at 125℃. Capacitance change ≤ ±30% of the initial value Tanδ ≤ 300% of the initial specified value Leakage Current ≤ The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing for 1,000 hours at 135℃, 125℃ without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤ ±30% of the initial value Tanδ ≤ 300% of the initial specified value Leakage current ≤ The initial specified value
Others	Satisfied characteristics KS C IEC 60384-4

DIMENSIONS OF PFD Series

Unit(mm)



Marking : BLACK SLEEVE, WHITE INK

øD	16	18
ød	0.8	0.8
F	7.5	7.5
øD'	øD+0.5 max.	
L'	L+2.0 max.	

RATINGS OF PFD Series

Vdc	Capacitance (㎌)	ø D×L(㎜)	ESR (Ω max./100kHz)		Rated Ripple Current (mArms/125℃,100㎑)	Rated Ripple Current (mArms/135℃,100㎑)
			20℃	-40℃		
50	1000	16 x 20	0.050	0.550	2960	1870
	1300	16 x 25	0.042	0.440	4040	2500
		18 x 20	0.042	0.440	3130	2110
	1600	16 x 31.5	0.035	0.360	5130	2960
	1800	18 x 25	0.033	0.320	4230	2530
	2200	16 x 35.5	0.029	0.270	5480	3160
	2400	18 x 31.5	0.028	0.250	5240	3020
	2500	16 x 40	0.025	0.220	5930	3420
	3000	18 x 35.5	0.024	0.200	5870	3390
	3600	18 x 40	0.023	0.160	6420	3700
63	680	16 x 20	0.053	0.340	2140	1910
	820	16 x 25	0.038	0.230	2940	2680
	910	18 x 20	0.044	0.260	2350	2100
	1200	16 x 31.5	0.034	0.200	3860	3050
		18 x 25	0.033	0.190	3080	2810
	1400	16 x 35.5	0.027	0.150	4590	3420
	1600	16 x 40	0.025	0.140	5190	3670
		18 x 31.5	0.028	0.150	4080	3220
	2000	18 x 35.5	0.022	0.120	5220	3690
	2300	18 x 40	0.021	0.110	5660	3820
80	470	16 x 20	0.053	0.340	2140	1910
	620	18 x 20	0.044	0.260	2350	2100
	680	16 x 25	0.038	0.230	2940	2680
	820	16 x 31.5	0.034	0.200	3860	3050
		18 x 25	0.033	0.190	3080	2810
	1000	16 x 35.5	0.027	0.150	4590	3420
	1200	18 x 31.5	0.028	0.150	4080	3220
	1300	16 x 40	0.025	0.140	5190	3670
		18 x 35.5	0.022	0.120	5220	3690
	1600	18 x 40	0.021	0.110	5660	3820

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Freq.(Hz) / Cap.(㎌)	120	1k	10k	50k	100k
470～910	0.50	0.85	0.94	0.96	1.00
1,000～2,000	0.60	0.87	0.95	0.97	1.00
2200～4,300	0.75	0.90	0.95	0.97	1.00
4700～12,000	0.85	0.95	0.98	0.99	1.00