

KFD series

Features

- ◆ Low impedance for high frequency . Used in communication equipments. Switching power supply , industrial measuring instruments ,ets.
- ◆ Endurance:4000~10000 hours at 105°C
- ◆ RoHS Compliant



Specifications

Item	Performance Characteristics									
Operating Temperature Range	-40~+105°C									
Rate Voltage Range	6.3~100 VDC									
Capacitance Range	15~3900µF									
Capacitance Tolerance	±20% (120Hz, +20°C)									
Leakage current (+20°C, max.)	I ≤ 0.01 CV or 3 (µA) After 2 minute, whichever is greater measured with rated working voltage applied.									
Dissipation factor (tgδ)	Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	
	D.F.(%)max	22	19	16	14	12	10	9	8	
For capacitance >1000uf, Add2% per another 1000uf(120Hz, +20°C)										
Low Temperature Characteristics (120Hz)	Impedance ratio max.									
	Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	
	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	
Z-40°C / Z+20°C										
Load Life	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 the specified period of time at 105°C									
	Rated voltage	6.3to 10Vdc			16to 100Vdc			ΦD	6.3~10wv	16~100wv
	Capacitance change	≤30% of the initial value			≤25% of the initial value			5~6.3	4000h	5000h
	D. F.(tgδ)	≤200% of the initial specified value						8~10	6000h	7000h
Leakage current ≤the initial specified value										
13										
8000h										
10000h										
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C5101-4 clause 4.1 at 20°C, they shall meet the specified values for the load life characteristics listed above.									

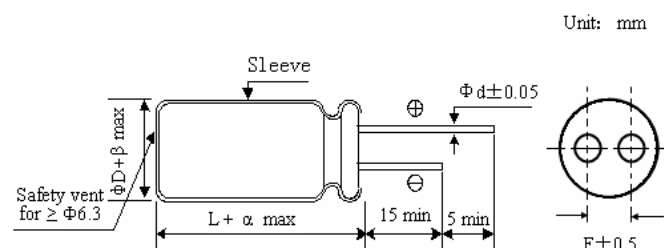
Multiplier for Ripple Current vs. Frequency

CAP(µA) \ Frequency (Hz)	120	1K	10K	100K
15~33	0.55	0.70	0.90	1.00
39~330	0.70	0.85	0.95	1.00
470~1000	0.75	0.90	0.98	1.00
1200~3900	0.80	0.95	1.00	1.00

Temperature Multipliers

Temperature(°C)	45	60	85	95	105
Factor	2.10	1.90	1.65	1.25	1.00

Diagram of Dimensions



ΦD	5	6.3	8	10	13
F	2.0	2.5	3.5	5.0	5.0
Φd	0.5	0.5	0.5	0.6	0.6
a	(L < 20)+1.5		(L ≥ 20)+2.0		
	(D < 20)+0.5		(D ≥ 20)+1.0		

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Standard Ratings

Case size

Φ D×L

Voltage	6.3V			10V			16V			25V			
	Cap(μF)	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
47											5×11	0.58	210
100	5×11	0.58	210	5×11	0.58	210	6.3×12	0.22	340	6.3×12	0.22	340	
120	5×11	0.58	210	5×11	0.58	210	6.3×12	0.22	340				
150	5×11	0.58	210	6.3×12	0.22	340							
220	6.3×12	0.22	340	6.3×12	0.22	340	8×12	0.13	640	8×12	0.13	640	
330	6.3×12	0.22	340	8×12	0.13	640	8×12	0.13	640	8×16	0.87	840	
470	8×12	0.13	640	8×12	0.13	640	8×16	0.087	840	8×20	0.069	1050	
680	8×12	0.13	640	8×16	0.087	840	8×20	0.069	1050	10×20	0.046	1400	
820	10×12	0.08	865							10×25	0.042	1650	
1000	8×16	0.087	840	8×20	0.069	1050	10×20	0.046	1400	13×21	0.035	1900	
1200	8×20	0.069	1050	10×20	0.046	1400	10×25	0.042	1650				
1500	10×20	0.046	1400	10×25	0.042	1650	13×21	0.035	1900	13×25	0.030	2124	
2200	10×25	0.042	1650	13×21	0.035	1900	13×25	0.030	2124				
2700	10×30	0.031	1910										
3300	13×21	0.035	1900	13×25	0.030	2124							
3900	13×25	0.030	2124										

Voltage	35V			50V			63V			100V			
	Cap(μF)	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
15											6.3×12	0.960	115
27	5×11	0.580	210								8×12	0.504	232
33	5×11	0.580	210				6.3×12	0.960	115				
39											8×16	0.360	300
47				6.3×12	0.30	295					10×13	0.344	314
56	6.3×12	0.220	340	6.3×12	0.30	295	8×12	0.504	232	8×20	0.264	362	
68											10×17	0.248	357
82							8×16	0.360	300	10×20	0.168	466	
100				8×12	0.170	555				10×25	0.160	531	
120				8×16	0.120	730	8×20	0.264	362	13×21	0.128	690	
150	8×12	0.130	640	10×13	0.120	760							
180							10×20	0.168	466	13×25	0.096	922	
220	8×16	0.087	840	10×17	0.084	1050	10×25	0.160	531				
270							13×21	0.128	690				
330	10×17	0.060	1210	10×25	0.550	1440	13×25	0.096	922				
470	10×20	0.046	1400	13×21	0.045	1660							
560	10×25	0.042	1650	13×25	0.034	1950							
680	13×21	0.035	1900										
1000	13×25	0.030	2124										

Max Allowable Ripple Current(mA,rms)at 105°C 100KHz,Max Impedance(Ω)at 20°C 100 KHz