GFD series

Features

- Low impedance for high ripple current , 4000 to 10000 hours at 105℃.
- Used in communication equipments ,switching power supply, industrial measuring instruments, etc.
- RoHS Compliant .

Specifications

Item	Performance Characteristics
Temperature Range	-40~+105℃
Rated Voltage Range	6.3~100Vdc
Capacitance Range	2.2~3300μF
Capacitance Tolerance	±20%（120Hz，+20℃）
Leakage Current （+20℃,max.）	I≤0.01CV 或 3（μA） After 2 minutes, whichever is greater measured with rated working voltage applied
Dissipation Factor （tgδ）120Hz，+20℃	For capacitance>1000μF , Add 2% per another 1000μF (120Hz，+20℃)
Low Temperature Characteristics （120Hz）	Impedance ratio max.
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple Current is applied for the specified period of time at 105℃
Shelf Life	After storing the capacitors under no load at 105℃ for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20℃, they shall meet the specified values for the load life characteristics listed above.
Others	JISC-5101(IEC 60384)

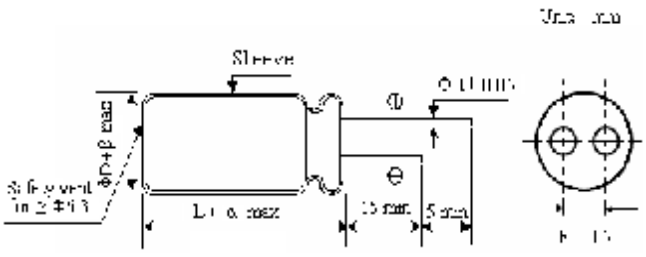
Working Voltage(Vdc)	6.3	10	16	25	35	50	63	100
D.F (%) max.	22	19	16	14	12	10	9	8

Working Voltage(Vdc)	6.3	10	16	25	35	50	63	100
Z-25℃/ Z+20℃	4	3	2	2	2	2	2	2
Z-40℃/ Z+20℃	8	6	4	3	3	3	3	3

Rated Voltage	6.3 to 10Vdc	16 to 100Vdc
Capacitance Change	≤±30% of the initial value	≤±25% of the initial value
D.F.(tgδ）	≤200% of the initial specified value	
Leakage Current	≤The initial specified value	

ΦD	6.3~10 WV	16~100 WV
5~6.3	4000 h	5000 h
8~10	6000 h	7000 h
⩾13	8000 h	10000 h

Diagram of Dimensions



Frequency Multipliers

μF \ Hz	120	1K	10K	100K
＜47	0.55	0.70	0.90	1.00
47~330	0.70	0.85	0.95	1.00
470~1000	0.75	0.90	0.98	1.00
＞1000	0.80	0.95	1.00	1.00

ΦD	5	6.3	8	10	13	16
F	2.0	2.5	3.5	5.0	5.0	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8
α	(L< 20) + 1.5		(L≥20) + 2.0			
β	(D< 20) + 0.5		(D≥20) + 1.0			

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Standard Ratings

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
33										5×11	1.0	110
47										5×11	0.58	210
68										5×11	0.58	210
100	5×11	0.58	210	5×11	0.58	210	6.3×11	0.22	340	6.3×11	0.22	340
220	6.3×11	0.22	340	6.3×11	0.22	340	8×12	0.13	640	8×12	0.13	640
330	6.3×11	0.22	340	8×12	0.13	640	8×12	0.13	640	8×16	0.087	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
1000	8×16	0.087	840	8×20	0.069	1050	10×20	0.046	1400	13×20	0.035	1900
1500	10×20	0.046	1400	10×25	0.042	1650	13×20	0.035	1900	13×25	0.030	2124
2200	10×25	0.042	1650	13×20	0.035	1900	13×25	0.030	2124			
3300	13×20	0.035	1900	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
2.2				5×11	5.0	52						
3.3				5×11	4.0	53						
4.7				5×11	3.0	60						
6.8				5×11	3.0	80						
10				5×11	1.40	110	5×11	1.50	90	6.3×11	0.960	115
22				5×11	0.637	163	6.3×11	1.20	100	8×12	0.621	209
33	5×11	0.58	210	6.3×11	0.300	295	6.3×11	0.960	115	8×16	0.450	280
47	6.3×11	0.30	295	6.3×11	0.300	295	8×12	0.600	213	10×12	0.344	314
68	6.3×11	0.19	400	8×12	0.190	375	8×12	0.220	420	10×17	0.248	357
82	8×12	0.15	560	8×12	0.170	555	10×12	0.180	480	10×25	0.160	531
100	8×12	0.15	560	8×12	0.170	555	10×12	0.180	480	10×25	0.160	531
120	8×12	0.15	560	8×12	0.170	555	10×12	0.180	480	10×25	0.160	531
150	8×12	0.13	640	10×12	0.120	760	10×20	0.168	500	13×20	0.150	663
180	8×16	0.087	840	10×17	0.084	1050	10×25	0.160	531	13×25	0.130	950
220	8×16	0.087	840	10×17	0.084	1050	10×25	0.160	531	13×25	0.130	950
330	10×17	0.060	1210	10×25	0.055	1440	13×25	0.096	922	16×25	0.100	1440
470	10×20	0.046	1400	13×20	0.045	1660	13×25	0.053	1620	16×30	0.090	1650
680	13×20	0.035	1900	13×25	0.040	1930	13×30	0.043	1950			
1000	13×25	0.030	2124	16×25	0.036	2300	16×30	0.034	2350			

Max Allowable Ripple Current (mA,rms) at 105℃ 100KHz, Max Impedance(Ω) at 20℃ 100 KHz,Case Size ΦD×L(mm).

Above size is the standard size for our product. If you need special size please contact our sales offices.