

GFE series

Features

- ◆ High temperature range, 1000 to 5000 hours at 130°C.
- ◆ Especially designed for LED driver, LED lighting .
- ◆ Suited for automobile electronics where heavy duty services are indispensable .
- ◆ RoHS Compliant .

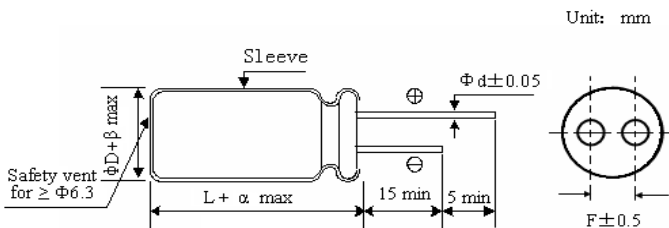


Specifications

Item	Performance Characteristics									
Temperature Range	-40~+130°C									
Rated Voltage Range	10~100Vdc									
Capacitance Range	4.7~4700μF									
Capacitance Tolerance	±20% (120Hz, +20°C)									
Leakage Current (+20°C,max.)	10~100 VDC ≤0.03CV 或 4 (μA) After 1 minutes, whichever is greater measured with rated working voltage applied									
Dissipation Factor (tgδ) 120Hz, +20°C	Working Voltage(Vdc)	10	16	25	35	50	63	80	100	
	D.F.(%)max.	20	16	14	12	10	10	8	8	
Low Temperature Characteristics(120Hz)	Impedance ratio max.									
	Working Voltage(Vdc)	10	16	25	35	50	63	80	100	
	Z-25°C/ Z+20°C	3	2	2	2	2	2	2	2	
Z-40°C/ Z+20°C	6	4	4	4	4	4	4	4		
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 the specified period of time at 130°C									
	Rated Voltage	10 to 100Vdc				10 to 100Vdc(Down Size*)				
	Time	Φ8:2000 h Φ10:3000h ≧Φ13:5000h			≤Φ8:1000 h ≥Φ10:2000 h					
	Capacitance Change	≤±30% of the initial value								
	D.F.(tgδ)	≤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°C after exposing them for 1000 hours at 130°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4									
	Rated Voltage	10 to 100Vdc								
	Capacitance Change	≤±30% of the initial value								
	D.F.(tgδ)	≤300% of the initial specified value								
	Leakage Current	≤The initial specified value								

Frequency Multipliers

Diagram of Dimensions



μF \ Hz	120	1K	10K	100K
<220	0.40	0.75	0.90	1.00
220~470	0.50	0.85	0.94	1.00
1000	0.60	0.87	0.95	1.00
2200~3300	0.75	0.90	0.95	1.00
4700	0.85	0.95	0.98	1.00

ΦD	8	10	13	16
F	3.5	5.0	5.0	7.5
Φd	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	10V			16V			25V			35V		
Cap(μF)	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
100	6.3×9*	0.63	220	6.3×9*	0.63	220	8×9*	0.40	300	10×9*	0.35	300
100	8×12	0.35	300	8×12	0.32	340	8×12	0.32	340	10×12	0.15	620
220	8×9*	0.45	250	8×9*	0.40	300	8×12*	0.30	400	10×12*	0.12	650
220	8×12	0.32	340	10×12	0.15	620	10×12	0.15	620	10×17	0.094	790
330	10×9*	0.35	320	10×9*	0.32	340	10×12*	0.12	650	10×17*	0.090	820
330	10×12	0.15	620	10×12	0.15	620	10×17	0.094	790	10×20	0.075	950
470	10×12	0.15	620	10×17	0.094	790	10×20	0.075	950	13×20	0.058	1080
1000	10×20	0.075	950	13×20	0.058	1080	13×25	0.040	1350	16×25	0.031	1620
2200	13×25	0.040	1350	16×25	0.031	1620	16×30	0.025	1860			
3300	16×25	0.031	1620	16×30	0.025	1860						
4700	16×30	0.025	1860									

Voltage	50V			63V			80V			100V		
Cap(μF)	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current	Case Size	Impedance	Ripple Current
4.7										8×12	2.0	130
10	6.3×9*	1.25	120	6.3×9*	3.0	80	6.3×9*	2.5	90	6.3×9*	2.2	110
10	8×12	0.75	180	8×12	2.5	90	8×12	2.0	130	8×12	1.5	150
22	8×9*	0.65	220	8×9*	2.2	110	8×9*	2.2	110	10×9*	1.2	200
22	8×12	0.50	250	8×12	2.0	130	8×12	1.5	150	10×12	0.80	480
33	8×9*	0.55	240	8×9*	1.8	120	10×9*	1.2	200	10×9*	1.00	250
33	8×12	0.50	280	8×12	1.5	150	10×12	0.8	480	10×12	0.80	480
47	10×9*	0.52	260	10×9*	1.2	200	10×9*	1.0	250	10×15*	0.65	520
47	8×12	0.50	280	10×12	0.59	530	10×12	0.8	480	10×17	0.55	630
100	10×12	0.20	520	10×17	0.41	690	10×20	0.39	790	13×20	0.25	990
220	10×20	0.098	880	13×20	0.16	1050	13×25	0.18	1240	16×25	0.11	1500
330	13×20	0.081	990	13×25	0.12	1290	13×30	0.16	1390	16×30	0.079	1790
470	13×25	0.059	1150	13×30	0.097	1460	16×25	0.11	1500			
1000	16×30	0.032	1590	16×30	0.059	1850						

Max Allowable Ripple Current (mA,rms) at 130°C 100KHz, Max Impedance(Ω) at 20°C 100 KHz,Case Size ΦD×L(mm), “*” is down size .

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