

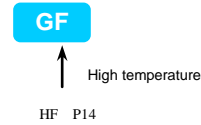
GF SERIES

Charge-discharge

High reliability

RoHS

- For frequently charge of regenerative voltage from AC servo amplifier and inverter control.
- Endurance with ripple current: 2000 hours at 115°C
- Rated voltage range: 350V~450V
- Ideal use to power supply, specially power source with turn on and off frequently and highly voltage fluctuation.



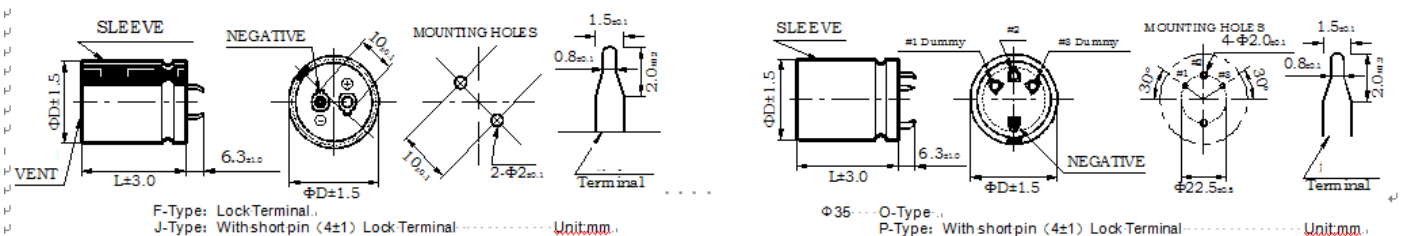
◆ SPECIFICATIONS

Items	Characteristics										
Operating Temperature Range	-25~+115°C										
Rated Working Voltage Range	350~450V										
Capacitance Tolerance	±20% (20°C, 120Hz)										
Dissipation Factor (MAX) 20°C, 120Hz	<table border="1"> <tr> <td>U_R(V)</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>tanδ</td> <td>0.18</td> <td>0.18</td> <td>0.20</td> <td>0.20</td> </tr> </table>	U _R (V)	350	400	420	450	tanδ	0.18	0.18	0.20	0.20
U _R (V)	350	400	420	450							
tanδ	0.18	0.18	0.20	0.20							
Impedance Ratio (MAX) 120Hz	<table border="1"> <tr> <td>U_R(V)</td> <td>350</td> <td>400</td> <td>420</td> <td>450</td> </tr> <tr> <td>Z_{-25°C}/Z_{+20°C}</td> <td>7</td> <td>7</td> <td>8</td> <td>8</td> </tr> </table>	U _R (V)	350	400	420	450	Z _{-25°C} /Z _{+20°C}	7	7	8	8
U _R (V)	350	400	420	450							
Z _{-25°C} /Z _{+20°C}	7	7	8	8							
Leakage Current (MAX)	I=0.01C _R U _R or 1.5mA whichever is minimum. (at 20°C, After 5minutes application of rated voltage) I=Leakage Current(µA) U _R =Rated Voltage(V) C _R =Rated Capacitance(µF)										
Charge and Discharge	<p>Under the condition of 15-35°C, charge & discharge the capacitor 50million times with 6Hz frequency voltage applied, then make the capacitor recover to 20°C, all requirements shown in the table are satisfied.</p> <table border="1"> <tr> <td>Leakage current</td> <td>≤Specified value</td> </tr> <tr> <td>tanδ change</td> <td>≤200% of specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within±20% of initial value</td> </tr> </table>	Leakage current	≤Specified value	tanδ change	≤200% of specified value	Capacitance change	Within±20% of initial value				
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	Useful Life		Load Life	Endurance Test	Shelf Life	
Life Time	6000h	>180000h	2000h	2000h	1000h	
Leakage Current	≤Specified value		≤Specified value	≤Specified value	≤Specified value	
tanδ change	≤300% of specified value		≤200% of specified value	≤200% of specified value	≤200% of specified value	
Capacitance Change	Within±30% of initial value		Within±20% of initial value	Within±20% of initial value	Within±20% of initial value	
Condition Applied Voltage	U _R	U _R	U _R	U _R	U _R =0	Back up to 20 °C and placed more than 24 hours. U _R to be applied for 60 min before measurement.
Applied Ripple Current	I _R	1.6×I _R	I _R	I _R =0	I _R =0	
Applied Temperature	115°C	40°C	115°C	115°C	115°C	
Failure Rate Level	≤1% Failure rate	≤1% Failure rate	0%	0%	0%	

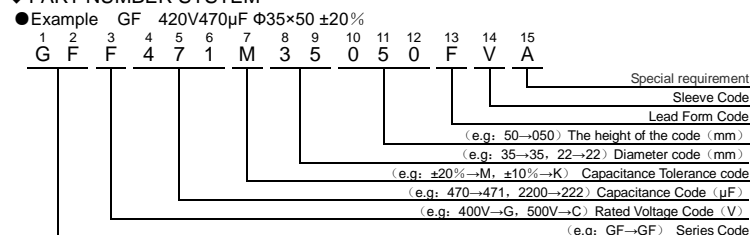
◆ Dimensions

● Terminal Code



● Please consult to us for the terminal type not displayed in content.

◆ PART NUMBER SYSTEM



◆ Rated Ripple Current Multiplies

Frequency coefficient		Frequency (Hz)				
Rated voltage (V)	350~450VV	50 (60)	100 (120)	300	1k	≥10k
		0.70	1.00	1.16	1.30	1.41

Temperature coefficient		Temperature (°C)					
Rated voltage (V)	350~450VV	+40	+55	+70	+85	+105	+115
		3.3	3.1	2.6	2.1	1.2	1.0

GF SERIES

◆ Standard Ratings

WV _{dc} (Surge Voltage) (V)	Cap (μ F)	Size D×L (mm)	tan δ 20℃120Hz	Ripple Current 115℃120Hz (Arms)	Catalog Part Number	WV _{dc} (Surge Voltage) (V)	Cap (μ F)	Size D×L (mm)	tan δ 20℃120Hz	Ripple Current 115℃120Hz (Arms)	Catalog Part Number
350 (400)	68	22×30	0.18	0.41	GFH680M22030□VA	420 (470)	68	22×30	0.20	0.45	GFF680M22030□VA
	82	22×30	0.18	0.45	GFH820M22030□VA		82	22×30	0.20	0.49	GFF820M22030□VA
	100	22×30	0.18	0.51	GFH101M22030□VA		100	22×35	0.20	0.56	GFF101M22035□VA
	120	22×30	0.18	0.56	GFH121M22030□VA		120	22×40	0.20	0.65	GFF121M22040□VA
	150	22×35	0.18	0.64	GFH151M22035□VA		150	22×45	0.20	0.75	GFF151M22045□VA
	180	22×40	0.18	0.78	GFH181M22040□VA		180	22×50	0.20	0.87	GFF181M22050□VA
	220	22×45	0.18	0.91	GFH221M22045□VA		220	25×45	0.20	1.05	GFF221M25045□VA
	270	25×50	0.18	1.13	GFH271M25050□VA		270	25×50	0.20	1.18	GFF271M25050□VA
	330	30×40	0.18	1.25	GFH331M30040□VA		330	30×50	0.20	1.38	GFF331M30050□VA
	390	30×45	0.18	1.44	GFH391M30045□VA		390	30×50	0.20	1.55	GFF391M30050□VA
	470	30×50	0.18	1.65	GFH471M30050□VA		470	35×50	0.20	1.80	GFF471M35050□VA
	560	35×50	0.18	1.91	GFH561M35050□VA		560	35×50	0.20	2.04	GFF561M35050□VA
	680	35×50	0.18	2.16	GFH681M35050□VA		680	35×60	0.20	2.35	GFF681M35060□VA
	820	35×60	0.18	2.40	GFH821M35060□VA		820	35×70	0.20	2.64	GFF821M35070□VA
1000	35×60	0.18	2.65	GFH102M35060□VA	1000	35×75	0.20	2.96	GFF102M35075□VA		
400 (450)	47	22×25	0.18	0.33	GFG470M22025□VA	450 (500)	47	22×25	0.20	0.36	GFE470M22025□VA
	68	22×30	0.18	0.43	GFG680M22030□VA		68	22×30	0.20	0.47	GFE680M22030□VA
	82	22×30	0.18	0.47	GFG820M22030□VA		82	22×35	0.20	0.55	GFE820M22035□VA
	100	22×35	0.18	0.54	GFG101M22035□VA		100	22×40	0.20	0.58	GFE101M22040□VA
	120	22×35	0.18	0.62	GFG121M22035□VA		120	22×45	0.20	0.67	GFE121M22045□VA
	150	22×40	0.18	0.69	GFG151M22040□VA		150	22×50	0.20	0.78	GFE151M22050□VA
	180	22×40	0.18	0.80	GFG181M22040□VA		180	25×45	0.20	0.91	GFE181M25045□VA
	220	25×45	0.18	0.98	GFG221M25045□VA		220	25×50	0.20	1.09	GFE221M25050□VA
	270	25×50	0.18	1.15	GFG271M25050□VA		270	30×50	0.20	1.24	GFE271M30050□VA
	330	30×40	0.18	1.27	GFG331M30040□VA		330	30×50	0.20	1.44	GFE331M30050□VA
	390	30×45	0.18	1.45	GFG391M30045□VA		390	35×50	0.20	1.64	GFE391M35050□VA
	470	30×50	0.18	1.67	GFG471M30050□VA		470	35×50	0.20	1.85	GFE471M35050□VA
	560	35×50	0.18	1.95	GFG561M35050□VA		560	35×60	0.20	2.16	GFE561M35060□VA
	680	35×60	0.18	2.24	GFG681M35060□VA		680	35×70	0.20	2.51	GFE681M35070□VA
820	35×70	0.18	2.56	GFG821M35070□VA	820	35×75	0.20	2.73	GFE821M35075□VA		
1000	35×75	0.18	2.84	GFG102M35075□VA	1000	35×85	0.20	3.09	GFE102M35085□VA		

*□Enter the appropriate terminal code

* Please ask for advice for other sizes.

*Aluminum electrolytic capacitor will emit heat when ripple current is applied, the performance will deteriorate when temp. rises, the useful life will be half of original life when temp rises every 5℃. Please reduce the ripple current when using capacitor.