

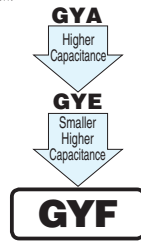
CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS nichicon

GYF Chip Type, 125°C High Reliability



Expanded

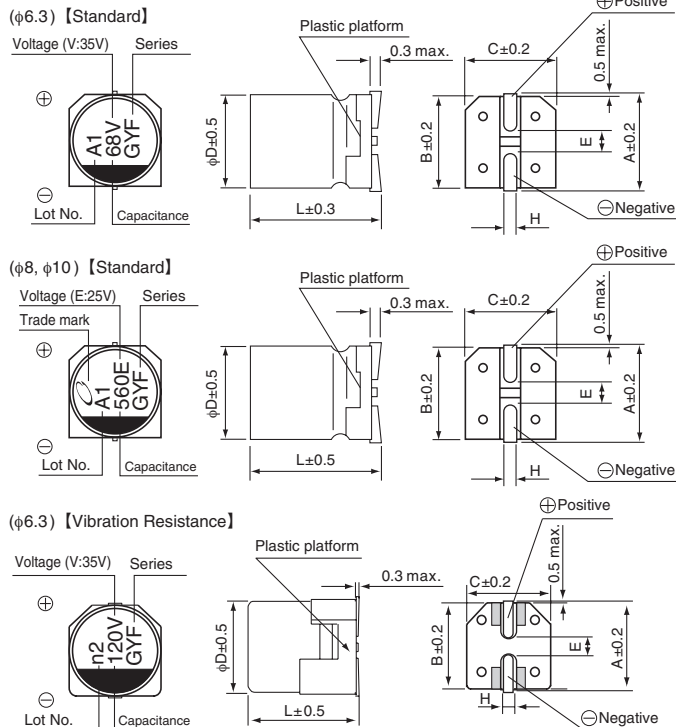
- High Reliability, Low ESR, High ripple current.
- Long life of 4000 hours at 125°C, High Capacitance.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.



Specifications

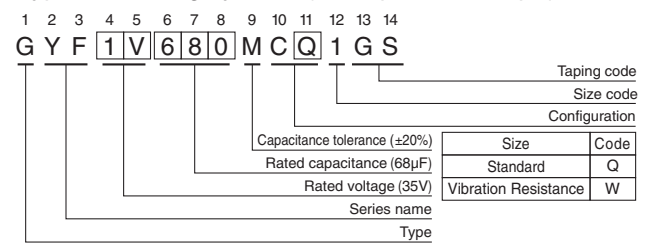
Item	Performance Characteristics		
Category Temperature Range	-55 to +125°C		
Rated Voltage Range	16 to 63V		
Rated Capacitance Range	33 to 1200µF		
Capacitance Tolerance	±20% at 120Hz, 20°C		
Tangent of loss angle (tan δ)	Rated voltage (V)	16 25 35 50 63	
	tan δ (max.)	0.16 0.14 0.12 0.10 0.08	
ESR	Less than or equal to the specified value at 100kHz, 20°C		
Leakage Current ※	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV(µA).		
Temperature Characteristics (Max.Impedance Ratio)	$Z(-25^{\circ}\text{C}) / Z(+20^{\circ}\text{C}) \leq 2$ $Z(-55^{\circ}\text{C}) / Z(+20^{\circ}\text{C}) \leq 2.5$ (100kHz)		
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 4000 hours at 125°C, the peak voltage shall not exceed the rated voltage.	Capacitance change	Within ±30% of initial capacitance value
		tan δ	200% or less of the initial specified value
		ESR	200% or less of the initial specified value
		Leakage current	Less than or equal to the initial specified value
Shelf Life	After storing the capacitors under no load at 125°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.	Capacitance change	Within ±30% of the initial capacitance value
		tan δ	200% or less of the initial specified value
		Leakage current	Less than or equal to the initial specified value
		ESR	200% or less of the initial specified value
Damp Heat (Steady State)	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C, 85% RH.	Capacitance change	Within ±30% of the initial capacitance value
		tan δ	200% or less of the initial specified value
		Leakage current	Less than or equal to the initial specified value
		ESR	200% or less of the initial specified value
Resistance to Soldering Heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.	Capacitance change	Within ±10% of the initial capacitance value
		tan δ	Less than or equal to the initial specified value
		Leakage current	Less than or equal to the initial specified value
		ESR	Less than or equal to the initial specified value
Marking	Black print on the case top.		

Dimensions

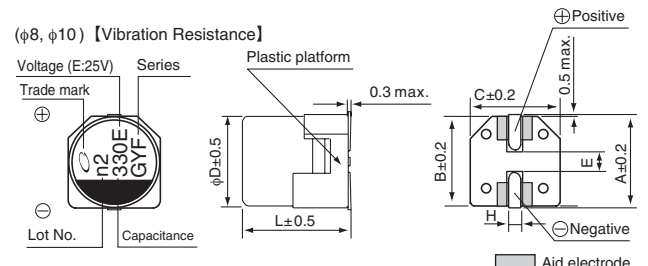


※ I : Leakage Current (µA), C : Rated Capacitance (µF), V : Rated Voltage (V)

Type numbering system (Example : 35V 68µF)



Standard						Vibration Resistance							
φD	6.3x5.8		6.3x7.7		8x10	10x10	10x12.5	φD	6.3x7.7		8x10	10x10	10x12.5
A	7.3	7.3	9.0	11.0	11.0			A	7.3	9.0	11.0	11.0	
B	6.6	6.6	8.3	10.3	10.3			B	6.6	8.3	10.3	10.3	
C	6.6	6.6	8.3	10.3	10.3			C	6.6	8.3	10.3	10.3	
E	2.2	2.2	3.1	4.5	4.5			E	2.2	3.1	4.5	4.5	
L	5.8	7.7	10.3	10.3	12.5			L	7.7	10.5	10.5	12.8	
H	0.5 to 0.8	0.8 to 0.8	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1			H	0.5 to 0.8	1.1 to 1.5	1.1 to 1.5	1.1 to 1.5	



● Frequency coefficient of rated ripple current

Frequency	120Hz	1kHz	10kHz	100kHz or more
Coefficient	0.15	0.40	0.75	1.00

● Dimension table in next page.

GYF

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20°C after 2 minutes)	ESR (mΩ) max. (20°C/100kHz)	Rated Ripple (mArms) (125°C/100kHz)	Part Number
16 (1C)	180	6.3×5.8	0.16	28.80	50	1100	GYF1C181MC□1GS
	270	6.3×7.7	0.16	43.20	30	1800	GYF1C271MC□1GS
	560	8×10	0.16	89.60	25	2000	GYF1C561MC□1GS
	1000	10×10	0.16	160.00	20	2800	GYF1C102MC□1GS
	1200	10×12.5	0.16	192.0	16	3500	GYF1C122MC□1GS
25 (1E)	100	6.3×5.8	0.14	25.0	50	1300	GYF1E101MC□1GS
	180	6.3×7.7	0.14	45.0	30	1800	GYF1E181MC□1GS
	330	8×10	0.14	82.5	27	2000	GYF1E331MC□1GS
	560	10×10	0.14	140.0	20	2800	GYF1E561MC□1GS
	680	10×12.5	0.14	170.0	16	3500	GYF1E681MC□1GS
35 (1V)	68	6.3×5.8	0.12	23.8	60	1200	GYF1V680MC□1GS
	120	6.3×7.7	0.12	42.0	35	1700	GYF1V121MC□1GS
	220	8×10	0.12	77.0	27	2000	GYF1V221MC□1GS
	390	10×10	0.12	136.5	20	2800	GYF1V391MC□1GS
	470	10×12.5	0.12	164.5	16	3500	GYF1V471MC□1GS
50 (1H)	47	6.3×7.7	0.10	23.5	40	1400	GYF1H470MC□1GS
	100	8×10	0.10	50.00	30	1700	GYF1H101MC□1GS
	180	10×10	0.10	90.00	28	2000	GYF1H181MC□1GS
	220	10×12.5	0.10	110.0	18	3000	GYF1H221MC□1GS
63 (1J)	33	6.3×7.7	0.08	20.79	80	1100	GYF1J330MC□1GS
	68	8×10	0.08	42.84	40	1700	GYF1J680MC□1GS
	120	10×10	0.08	75.60	30	2000	GYF1J121MC□1GS
	150	10×12.5	0.08	94.5	20	3000	GYF1J151MC□1GS

□ : Enter the appropriate configuration code.

Blue : New product (as of October 2024)

• For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.

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