

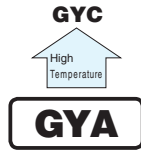
# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS nichicon

# GYA

Chip Type, 125°C High Reliability



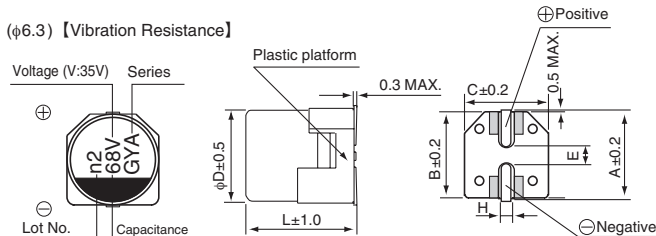
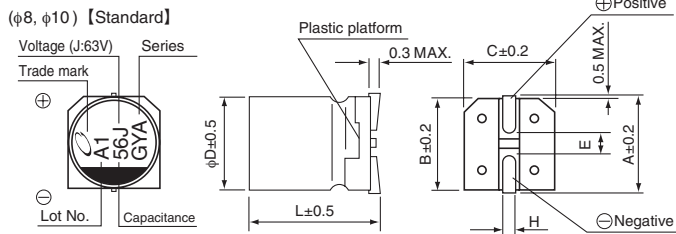
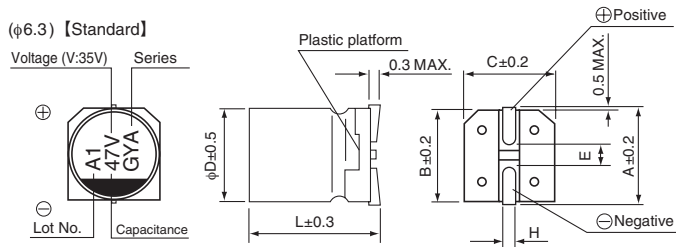
- High Reliability, Low ESR, High ripple current.
- Long life of 4000 hours at 125°C.
- Adapted to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



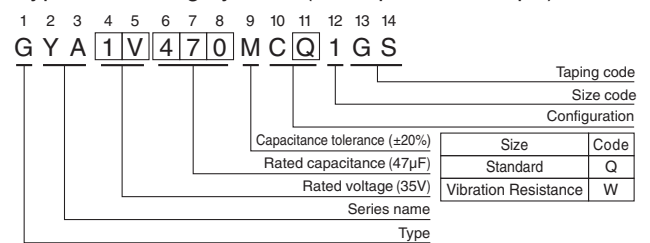
## Specifications

Item	Performance Characteristics	
Category Temperature Range	-55 to +125°C	
Rated Voltage Range	16 to 63V	
Rated Capacitance Range	10 to 470μF	
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°C / Z+20°C ≤ 2	
	Z-55°C / Z+20°C ≤ 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 (2000 hours for φ6.3 rated at 16V) at 125°C, the peak voltage shall not exceed the rated voltage.	
	Capacitance change	Within ±30% of initial capacitance 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.	
	tan δ	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.	
	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.	
	Leakage current	Less than or equal to the initial specified value
Marking	Black print on the case top.	

## Dimensions



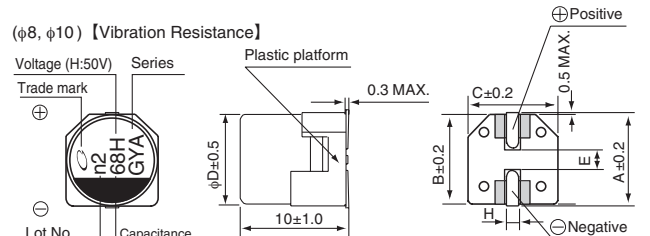
## Type numbering system (Example : 35V 47μF)



Standard	(mm)			
	φ6.3×5.8	φ6.3×7.7	φ8×10	φ10×10
A	7.3	7.3	9.0	11.0
B	6.6	6.6	8.3	10.3
C	6.6	6.6	8.3	10.3
E	2.2	2.2	3.1	4.5
L	5.8	7.7	10.3	10.3
H	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Vibration Resistance	(mm)		
	φ6.3×7.7	φ8×10	φ10×10
A	7.3	9.0	11.0
B	6.6	8.3	10.3
C	6.6	8.3	10.3
E	2.2	3.1	4.5
L	7.7	10	10
H	0.5 to 0.8	1.1 to 1.5	1.1 to 1.5

Voltage	Code				
	V	16	25	35	50, 63
Code	C	E	V	H	J



## 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.



■ 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 (mA rms) (125°C/100kHz)	Part Number
16 (1C)	82	6.3×5.8	0.16	13.12	50	1000	GYA1C820MC□1GS
	150	6.3×7.7	0.16	24	30	1500	GYA1C151MC□1GS
	270	8×10	0.16	43.2	25	1700	GYA1C271MC□1GS
	470	10×10	0.16	75.2	20	2100	GYA1C471MC□1GS
25 (1E)	56	6.3×5.8	0.14	14	50	900	GYA1E560MC□1GS
	100	6.3×7.7	0.14	25	30	1400	GYA1E101MC□1GS
	220	8×10	0.14	55	27	1600	GYA1E221MC□1GS
	330	10×10	0.14	82.5	20	2000	GYA1E331MC□1GS
35 (1V)	47	6.3×5.8	0.12	16.45	60	900	GYA1V470MC□1GS
	68	6.3×7.7	0.12	23.8	35	1400	GYA1V680MC□1GS
	150	8×10	0.12	52.5	27	1600	GYA1V151MC□1GS
	270	10×10	0.12	94.5	20	2000	GYA1V271MC□1GS
50 (1H)	22	6.3×5.8	0.10	11	80	750	GYA1H220MC□1GS
	33	6.3×7.7	0.10	16.5	40	1100	GYA1H330MC□1GS
	68	8×10	0.10	34	30	1250	GYA1H680MC□1GS
	100	10×10	0.10	50	28	1600	GYA1H101MC□1GS
63 (1J)	10	6.3×5.8	0.08	6.3	120	700	GYA1J100MC□1GS
	22	6.3×7.7	0.08	13.86	80	900	GYA1J220MC□1GS
	33	8×10	0.08	20.79	40	1100	GYA1J330MC□1GS
	56	10×10	0.08	35.28	30	1400	GYA1J560MC□1GS

□ : Enter the appropriate configuration code.

- Taping specifications are given in page 20.
- Recommended land size, soldering by reflow are given in page 16,17.
- Please refer to page 3 for the minimum order quantity.

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