

# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

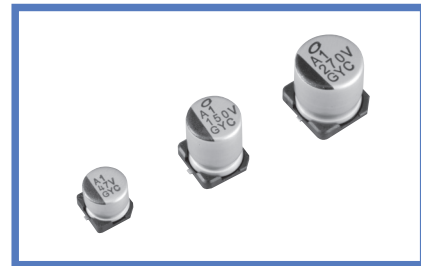
# GYC

Chip Type, 135°C High Reliability



**TENTATIVE**

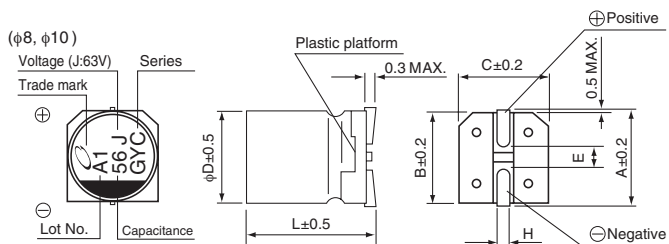
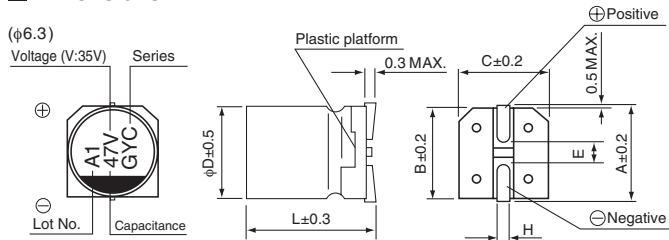
- High Reliability, Low ESR, High ripple current.
- Long life of 2000 to 4000 hours at 135°C.
- Compliant to the RoHS directive (2011/65/EU).
- AEC-Q200 compliant. Please contact us for details.



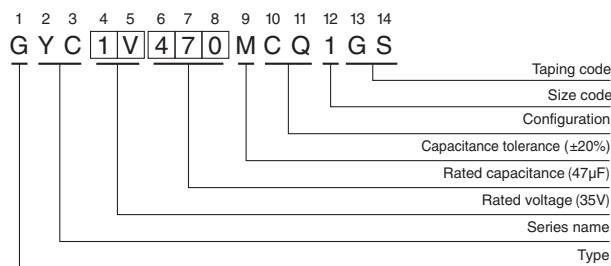
## Specifications

Item	Performance Characteristics	
Category Temperature Range	-55 to +135°C	
Rated Voltage Range	25 to 63V	
Rated Capacitance Range	10 to 330μF	
Capacitance Tolerance	±20% at 120Hz, 20°C	
Tangent of loss angle (tan δ)	Rated voltage (V)	25    35    50    63
	tan δ (MAX.)	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 φD = 6.3) at 135°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
	Leakage current	Less than or equal to the initial specified value
Shelf Life	After storing the capacitors under no load at 135°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.	
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 (1000 hours for φD = 6.3) 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
Resistance to Soldering Heat	After soldering the Capacitor, After restored at room temperature, they meet the characteristics requirements listed below.	
	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
Marking	Black print on the case top.	

## Dimensions



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



	(mm)			
φDxL	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

Voltage				
V	25	35	50	63
Code	E	V	H	J

Design, Specifications are subject to change without notice.

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■ Dimensions

V (Code) Code Cap.(μF)		25			35			50			63		
		1E			1V			1H			1J		
10	100										6.3 × 5.8	120	700
22	220							6.3 × 5.8	80	750	6.3 × 7.7	80	900
33	330							6.3 × 7.7	45	1100	8 × 10	40	1100
47	470				6.3 × 5.8	60	900						
56	560	6.3 × 5.8	50	900							10 × 10	30	1400
68	680				6.3 × 7.7	40	1400	8 × 10	30	1250			
100	101	6.3 × 7.7	35	1400				10 × 10	28	1600			
150	151				8 × 10	27	1600						
220	221	8 × 10	27	1600									
270	271				10 × 10	20	2000				φD×L	ESR mΩ	Ripple mArms
330	331	10 × 10	20	2000									

ESR at 20°C 100kHz  
Rated ripple Current at 135°C 100kHz

● Frequency coefficient of rated ripple current

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

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