

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS nichicon

GYE

Chip Type, 125°C High Reliability



- 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.



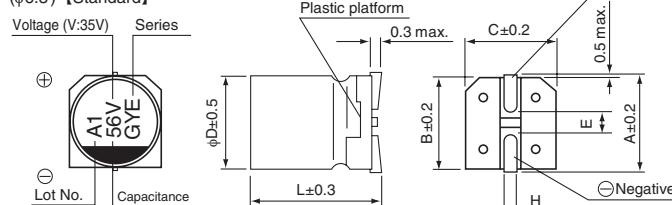
■ Specifications

Item	Performance Characteristics										
Category Temperature Range	-55 to +125°C										
Rated Voltage Range	16 to 63V										
Rated Capacitance Range	56 to 680μF										
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					
	120Hz 20°C										
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.										
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									
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									
Marking	Black print on the case top.										

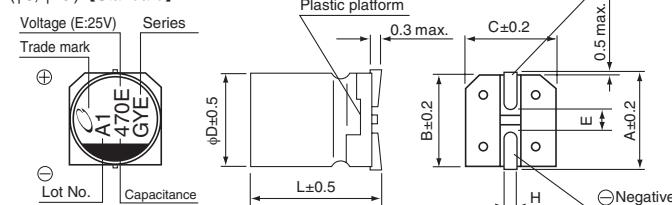
* I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■ Dimensions

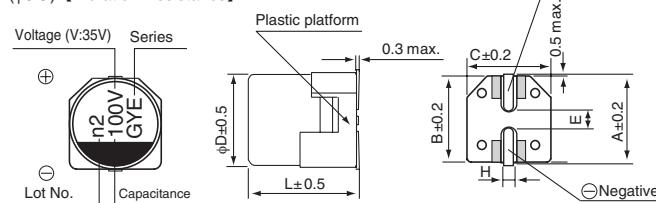
(φ6.3) [Standard]



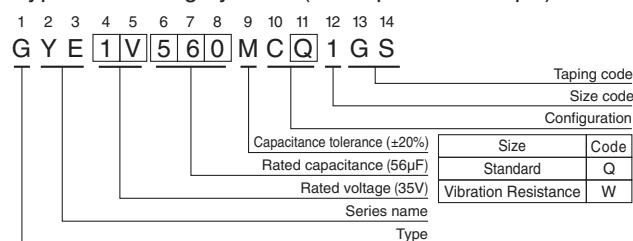
(φ8, φ10) [Standard]



(φ6.3) [Vibration Resistance]



Type numbering system (Example : 35V 56μF)



Standard

	(mm)
A _{01L}	6.3×5.8 6.3×7.7 8×10 10×10 10×12.5
A	7.3 7.3 9.0 11.0 11.0
B	6.6 6.6 8.3 10.3 10.3
C	6.6 6.6 8.3 10.3 10.3
E	2.2 2.2 3.1 4.5 4.5
L	5.8 7.7 10.3 10.3 12.5
H	0.5 to 0.8 0.5 to 0.8 0.8 to 1.1 0.8 to 1.1 0.8 to 1.1

Vibration Resistance (mm)

	(mm)
A	7.3 9.0 11.0 11.0
B	6.6 8.3 10.3 10.3
C	6.6 8.3 10.3 10.3
E	2.2 3.1 4.5 4.5
L	7.7 10.5 10.5 12.8
H	0.5 to 0.8 1.1 to 1.5 1.1 to 1.5 1.1 to 1.5

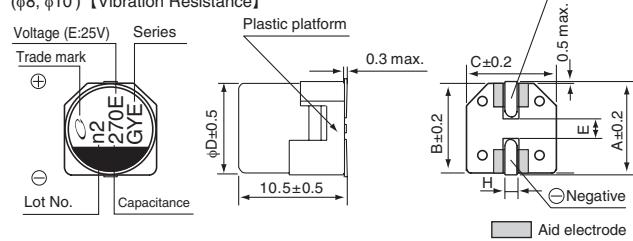
Voltage

Code

Series

Type

(φ8, φ10) [Vibration Resistance]



● 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.

CAT.8100N

GYE

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D×L(mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 2 minutes)	ESR(mΩ) max. (20°C/100kHz)	Rated Ripple (mArms) (125°C/100kHz)	Part Number
16 (1C)	120	6.3×5.8	0.16	19.20	50	1100	GYE1C121MCQ1GS
	180	6.3×7.7	0.16	28.80	30	1800	GYE1C181MC□1GS
	390	8×10	0.16	62.40	25	2000	GYE1C391MC□1GS
	680	10×10	0.16	108.80	20	2800	GYE1C681MC□1GS
25 (1E)	68	6.3×5.8	0.14	17.0	50	1100	GYE1E680MCQ1GS
	82	6.3×5.8	0.14	20.5	50	1100	GYE1E820MCQ1GS
	150	6.3×7.7	0.14	37.5	30	1700	GYE1E151MC□1GS
	270	8×10	0.14	67.5	27	2000	GYE1E271MC□1GS
	470	10×10	0.14	117.5	20	2800	GYE1E471MC□1GS
	560	10×12.5	0.14	140.00	16	3500	GYE1E561MC□1GS
35 (1V)	56	6.3×5.8	0.12	19.6	60	1100	GYE1V560MCQ1GS
	100	6.3×7.7	0.12	35.0	35	1700	GYE1V101MC□1GS
	180	8×10	0.12	63.0	27	2000	GYE1V181MC□1GS
	330	10×10	0.12	115.5	20	2800	GYE1V331MC□1GS
	390	10×12.5	0.12	136.50	16	3500	GYE1V391MC□1GS
50 (1H)	82	8×10	0.10	41.00	30	1700	GYE1H820MC□1GS
	150	10×10	0.10	75.00	28	2000	GYE1H151MC□1GS
	180	10×12.5	0.10	90.00	18	3000	GYE1H181MC□1GS
63 (1J)	56	8×10	0.08	35.28	40	1700	GYE1J560MC□1GS
	100	10×10	0.08	63.00	30	2000	GYE1J101MC□1GS
	120	10×12.5	0.08	75.60	20	3000	GYE1J121MC□1GS

□ : Enter the appropriate configuration code.

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