

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

GYB

Chip Type, 105°C High Reliability



NEW

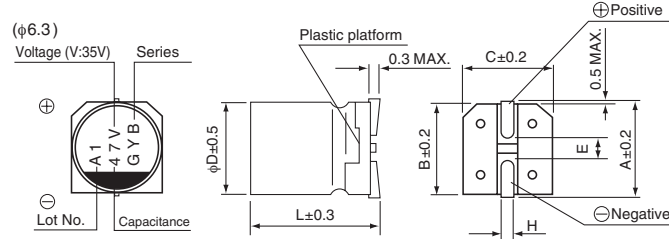
- High Reliability, Low ESR, High ripple current.
- Long life of 10000 hours at 105°C.
- Compliant to the RoHS directive (2011/65/EU).



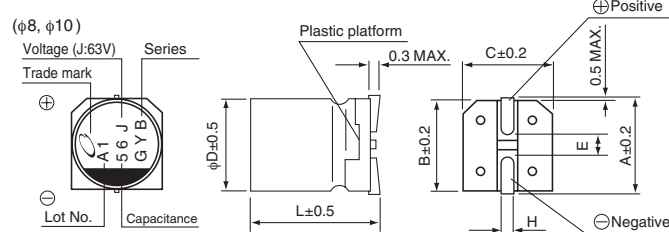
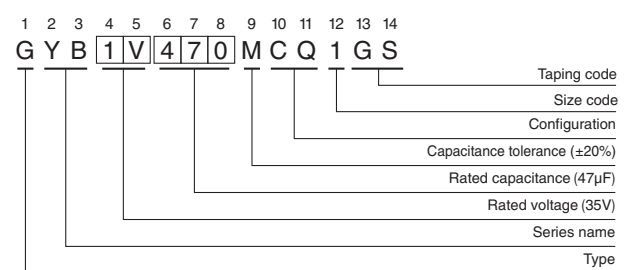
Specifications

Item	Performance Characteristics														
Category Temperature Range	-55 to +105°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)	<table><tr><td>Rated voltage (V)</td><td>25</td><td>35</td><td>50</td><td>63</td></tr><tr><td>tan δ (MAX.)</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.08</td></tr></table>	Rated voltage (V)	25	35	50	63	tan δ (MAX.)	0.14	0.12	0.10	0.08	120Hz 20°C			
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 10000 hours at 105°C, the peak voltage shall not exceed the rated voltage.				<table><tr><td>Capacitance change</td><td>Within ± 30% of initial capacitance value</td></tr><tr><td>tan δ</td><td>200% or less of the initial specified value</td></tr><tr><td>ESR</td><td>200% or less of the initial specified value</td></tr><tr><td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr></table>	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		
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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 105°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 1000 hours at 85°C, 85% RH.				<table><tr><td>Capacitance change</td><td>Within±30% of the initial capacitance value</td></tr><tr><td>tan δ</td><td>200% or less of the initial specified value</td></tr><tr><td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr></table>	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				
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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.				<table><tr><td>Capacitance change</td><td>Within±10% of the initial capacitance value</td></tr><tr><td>tan δ</td><td>Less than or equal to the initial specified value</td></tr><tr><td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr></table>	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				
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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)



	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.

NICHICON CORPORATION

CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

GYB

Specifications

V (Code) Cap.(μF) Code		25			35			50			63		
		1E			1V			1H			1J		
10	100										6.3 × 5.8	120	1000
22	220							6.3 × 5.8	80	1100	6.3 × 7.7	80	1500
33	330							6.3 × 7.7	40	1600	8 × 10	40	1600
47	470				6.3 × 5.8	60	1300						
56	560	6.3 × 5.8	50	1300							10 × 10	30	1800
68	680				6.3 × 7.7	35	2000	8 × 10	30	1800			
100	101	6.3 × 7.7	30	2000				10 × 10	28	2000			
150	151				8 × 10	27	2300						
220	221	8 × 10	27	2300									
270	271				10 × 10	20	2500				φD×L	ESR mΩ	Ripple mA rms
330	331	10 × 10	20	2500									

ESR at 20°C 100kHz
Rated ripple Current at 105°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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NICHICON CORPORATION

April 2018