

GWC

Chip Type, 135°C High Reliability



For SMD



High Ripple Current



Low Impedance



Long Life

NEW

- High Reliability, Low ESR, High ripple current.
- Long life of 4000 hours at 135°C.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.

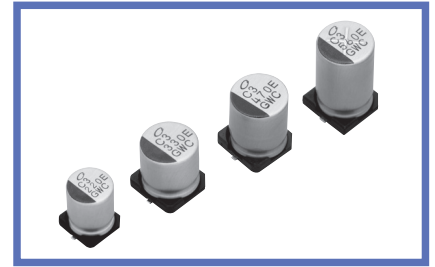
GWC

High Ripple

GXC

High Ripple

GVC

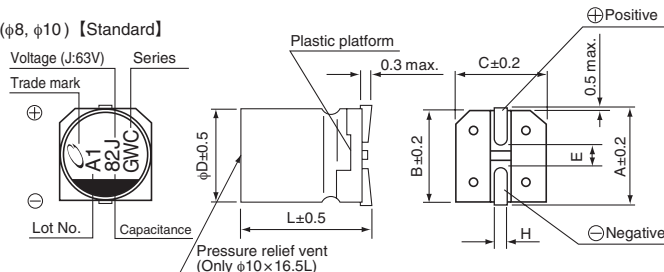


Specifications

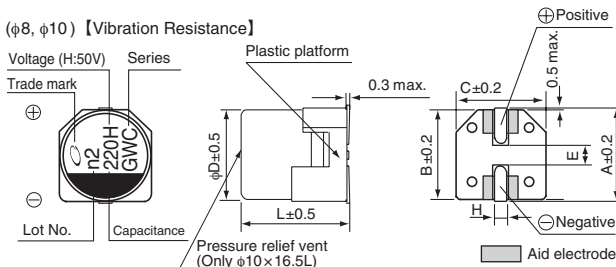
Item	Performance Characteristics				
Category Temperature Range	-55 to +135°C				
Rated Voltage Range	25 to 63V				
Rated Capacitance Range	47 to 560μF				
Capacitance Tolerance	±20% at 120Hz, 20°C				
Tangent of loss angle (tan δ)	Rated voltage (V)	25	35	50	63
	tan δ (max.)	0.14	0.12	0.10	0.08
ESR	120Hz 20°C				
Leakage Current ※	Less than or equal to the specified value at 100kHz, 20°C				
Temperature Characteristics (Max. Impedance Ratio)	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV(μA).				
Endurance	Z(-25°C) / Z(+20°C) ≤ 2				
	Z(-55°C) / Z(+20°C) ≤ 2.5 (100kHz)				
Shelf Life	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 or 135°C, the peak voltage shall not exceed the rated voltage.				
	Capacitance change	Within ± 30% of initial capacitance value			
Damp Heat (Steady State)	tan δ	200% or less of the initial specified value			
	ESR	200% or less of the initial specified value			
Resistance to Soldering Heat	Leakage current	Less than or equal to the initial specified value			
	Capacitance change	Within ±30% of the initial capacitance value			
Marking	tan δ	200% or less of the initial specified value			
	Leakage current	Less than or equal to the initial specified value			

Dimensions

(φ8, φ10) 【Standard】



(φ8, φ10) 【Vibration Resistance】



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

Type numbering system (Example : 35V 150μF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
G	W	C	1	V	1	5	1	M	C	O	1	G	S
Taping code			Size code		Configuration								
Capacitance tolerance (±20%)			Rated capacitance (150μF)		Rated voltage (35V)		Series name		Type				
Standard			φ8 to φ10		CO		Vibration Resistance		NX				

Standard (mm)					Vibration Resistance (mm)				
8 × 10	10 × 10	10 × 12.5	10 × 16.5		8 × 10	10 × 10	10 × 12.5	10 × 16.5	
A 9.0	11.0	11.0	11.0		A 9.0	11.0	11.0	11.0	
B 8.3	10.3	10.3	10.3		B 8.3	10.3	10.3	10.3	
C 8.3	10.3	10.3	10.3		C 8.3	10.3	10.3	10.3	
E 3.1	4.5	4.5	4.5		E 3.1	4.5	4.5	4.5	
L 10.3	10.3	12.5	16.5		L 10.5	10.5	12.8	16.8	
H 0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	1.1 to 1.5		H 1.1 to 1.5	1.1 to 1.5	1.1 to 1.5	1.1 to 1.5	

Voltage				
V	25	35	50	63
Code	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.

GWC
■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μ F)	Case Size ϕ D $\times$ L (mm)	tan δ	Leakage Current (μ A) (at 20°C after 2 minutes)	ESR (m Ω) max. (20°C/100kHz)	Rated Ripple (mArms)		Part Number
						125°C/ 100kHz	135°C/ 100kHz	
25 (1E)	220	8 $\times$ 10	0.14	55.0	18	4300	3000	GWC1E221MC□1GS
	330	10 $\times$ 10	0.14	82.5	16	5000	3500	GWC1E331MC□1GS
	470	10 $\times$ 12.5	0.14	117.5	14	5300	3700	GWC1E471MC□1GS
	560	10 $\times$ 16.5	0.14	140.0	10	6100	4300	GWC1E561MN□1GS
35 (1V)	150	8 $\times$ 10	0.12	52.5	18	4300	3000	GWC1V151MC□1GS
	270	10 $\times$ 10	0.12	94.5	16	5000	3500	GWC1V271MC□1GS
	330	10 $\times$ 12.5	0.12	115.5	15	5300	3600	GWC1V331MC□1GS
	470	10 $\times$ 16.5	0.12	164.5	11	5800	4100	GWC1V471MN□1GS
50 (1H)	68	8 $\times$ 10	0.10	34.0	24	4000	2700	GWC1H680MC□1GS
	120	10 $\times$ 10	0.10	60.0	20	4700	3000	GWC1H121MC□1GS
	150	10 $\times$ 12.5	0.10	75.0	17	5000	3300	GWC1H151MC□1GS
	220	10 $\times$ 16.5	0.10	110.0	13	5500	3800	GWC1H221MN□1GS
63 (1J)	47	8 $\times$ 10	0.08	29.6	27	3700	2300	GWC1J470MC□1GS
	82	10 $\times$ 10	0.08	51.7	22	4400	2800	GWC1J820MC□1GS
	100	10 $\times$ 12.5	0.08	63.0	17	5000	3300	GWC1J101MC□1GS
	150	10 $\times$ 16.5	0.08	94.5	13	5500	3800	GWC1J151MN□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.