

## Chip Type, 105°C Use, Large Capacitance Capacitors

GREEN CAP

SMD

105°C  
2000hours

Anti-cleaning solvent

- Compatible with surface mounting.
- Supplied with carrier taping.
- Guarantees 2000 hours at 105°C.



High temperature



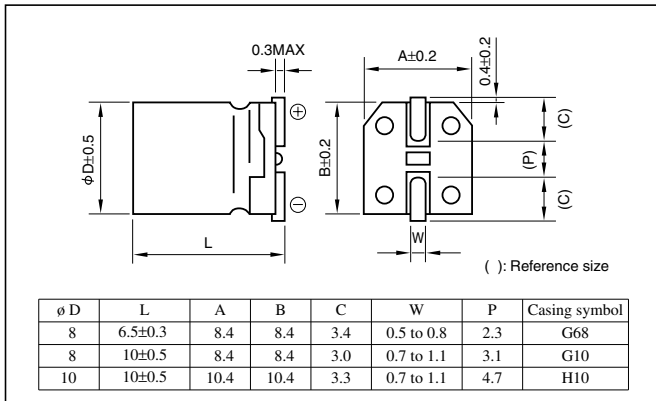
Marking color : Black print (ø8x6.5L)  
White print on a brown sleeve (ø8x10L · ø10x10L)

### Specifications

Item	Performance	
Category temperature range (°C)	-55 to +105	
Tolerance at rated capacitance (%)	±20 (20°C, 120Hz)	
Leakage current (µA)	Less than 0.01CV or 3 whichever is larger(after 2 minutes) C: Rated capacitance(µF); V: Rated voltage(V) (20°C)	
Tangent of loss angle (tanδ)	Rated voltage (V)	6.3 10 16 25 35 50 63 100
	tanδ (max.)	0.30 0.24 0.22 0.16 0.13 0.12 0.11 0.10 (20°C, 120Hz)
Characteristics at high and low temperature	Rated voltage (V)	6.3 10 16 25 35 50 63 100
	Impedance ratio (max.)	Z-25°C / Z+20°C: 4 3 2 2 2 2 2 2 Z-40°C / Z+20°C: 8 5 4 3 3 3 3 3 (120Hz)
Endurance (105°C) (Applied ripple current)	Test time	2000 hours
	Leakage current	The initial specified value or less
	Percentage of capacitance change	Within ±20% of initial value
	Tangent of the loss angle	200% or less of the initial specified value
Shelf life (105°C)	Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-1	
Applicable standards	JIS C5101-1, -18 1998 (IEC 60384-1 1992, -18 1993)	

### Outline Drawing

Unit: mm



### Coefficient of Frequency for Rated Ripple Current

Rated voltage(V)	Frequency(Hz)			
	50 · 60	120	1k	10k · 100k
6.3 to 16	0.80	1	1.15	1.25
25 to 35	0.80	1	1.25	1.40
50 to 63	0.80	1	1.35	1.50
100	0.70	1	1.35	1.50

### Part numbering system (example: 16V470µF)

RVJ	—	16	V	471	M	H10	□	U	□
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol	Additional symbol	Taping symbol	

- Land pattern size is described on page 10.
- The taping specifications are described on page 11.
- Soldering conditions are described on page 28.

### Standard Ratings

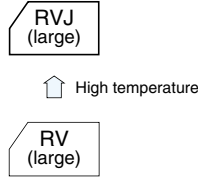
Rated voltage (V)	Item	6.3				10				16				25				35				50				63				100			
		Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current	Case	Casing symbol	ESR	Rated ripple current				
		φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms	φ D(mm)		Ω	mArms				
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
100	—	—	—	—	8x6.5	G68	4.3	110	8x6.5	G68	3.6	110	8x10	G10	2.7	178	10x10	H10	2.2	324	8x10	G10	2.0	178	10x10	H10	2.0	324	—	—			
220	8x10	G10	2.3	178	8x10	G10	2.0	178	10x10	H10	1.7	324	10x10	H10	1.2	324	10x10	H10	0.98	324	—	—	—	—	—	—	—	—	—	—			
330	8x10	G10	1.5	178	10x10	H10	1.3	324	10x10	H10	1.1	324	10x10	H10	0.80	324	—	—	—	—	—	—	—	—	—	—	—	—	—				
470	10x10	H10	1.0	324	10x10	H10	0.92	324	10x10	H10	0.78	324	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
1000	10x10	H10	0.50	324	10x10	H10	0.40	324	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				

(Note) Rated ripple current : 105°C, 120Hz ; ESR : 20°C, 120Hz

Chip Type, 105°C Use, Large Capacitance Capacitors

SMD 105°C 5000hours Anti-cleaning solvent

- Surface mount device.
- Supplied with taping.
- Guarantees 5000 hours at 105°C.



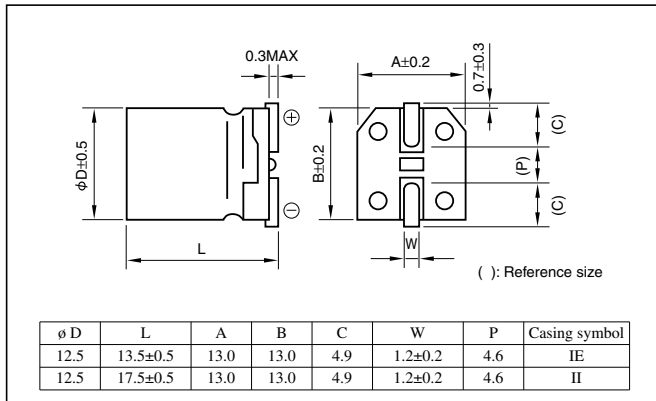
Marking color : White print on a brown sleeve

Specifications

Item	Performance									
Category temperature range (°C)	-55 to +105									
Tolerance at rated capacitance (%)	±20 (20°C,120Hz)									
Leakage current (μA)	Less than 0.01CV (after 2 minutes) C: Rated capacitance(μF); V: Rated voltage(V) (20°C)									
Tangent of loss angle (tanδ)	Rated voltage (V)	6.3	10	16	25	35	50	63	100	
	tanδ (max.)	0.30	0.26	0.22	0.16	0.13	0.12	0.11	0.10	
0.02 is added to every 1000μF increase over 1000μF. (20°C,120Hz)										
Characteristics at high and low temperature	Rated voltage (V)	6.3	10	16	25	35	50	63	100	
	Impedance ratio (max.)	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2
Z-40°C / Z+20°C 8 5 4 3 3 3 3 3 3 (120Hz)										
Endurance (105°C) (Applied ripple current)	Test time	5000 hours								
	Leakage current	The initial specified value or less								
	Percentage of capacitance change	Within ±20% of initial value								
	Tangent of the loss angle	200% or less of the initial specified value								
Shelf life (105°C)	Test time : 1000 hours; other items are the same as those for the endurance. Voltage application treatment : According to JIS C5101-1									
Applicable standards	JIS C5101-1, -18 1998 (IEC 60384-1 1992, -18 1993)									

Outline Drawing

Unit: mm



- Land pattern size is described on page 10.
- The taping specifications are described on page 11.
- Soldering conditions are described on page 28.

Coefficient of Frequency for Rated Ripple Current

Rated capacitance(μF)	Frequency(Hz)			
	120	1k	10k	100k
47	0.50	0.76	0.87	1
100 to 220	0.70	0.85	0.90	1
330 to 1000	0.80	0.93	0.98	1

Part numbering system (example: 10V1000μF)

RVJ	—	10	V	102	M	IE	—	R5
Series code		Rated voltage symbol		Rated capacitance symbol	Capacitance tolerance symbol	Casing symbol		Taping symbol

This parts number is not "GREEN CAP".

Standard Ratings

Rated voltage (V)	6.3		10		16		25		35		50		63		100	
	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current	Case	Rated ripple current
Rated capacitance (μF)	Case	Imp.	Case	Imp.	Case	Imp.	Case	Imp.	Case	Imp.	Case	Imp.	Case	Imp.	Case	Imp.
	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω	φ D(mm)	Ω
47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
220	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
330	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1000	12.5x13.5	IE 0.105	747	12.5x13.5	IE 0.105	747	12.5x13.5	IE 0.105	747	12.5x17.5	II 0.093	871	—	—	—	—

(Note) Rated ripple current : 105°C, 120Hz ; Impedance(Imp.) : 20°C, 100kHz