

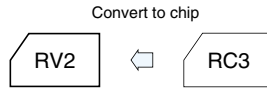
Chip Type Standard Capacitors (height:5.5mm)

GREEN CAP

SMD

Anti-cleaning solvent

- Compatible with surface mounting for 5.5mm high capacitors.
- Supplied with carrier taping.
- Guarantees 2000 hours at 85°C.



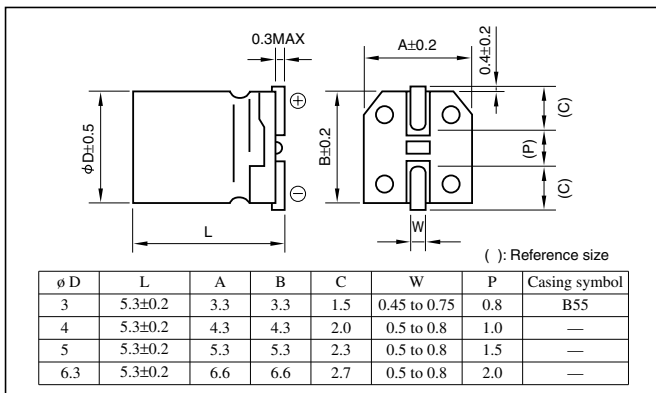
Marking color : Black print

Specifications

Item	Performance								
Category temperature range (°C)	-40 to +85								
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)		4	6.3	10	16	25	35	50
	tanδ (max.)	φ 3	0.42	0.30	0.24	0.22	0.16	0.14	0.12
		φ 4 to φ 6.3	0.42	0.28	0.24	0.20	0.14	0.12	0.10
Characteristics at high and low temperature	Rated voltage (V)		4	6.3	10	16	25	35	50
	Impedance ratio (max.)	φ 3	Z-25°C / Z+20°C	7	4	3	2	2	2
			Z-40°C / Z+20°C	17	10	8	6	4	3
		φ 4 to φ 6.3	Z-25°C / Z+20°C	7	3	3	2	2	2
Z-40°C / Z+20°C			15	8	5	4	3	3	3
Endurance (85°C) (Applied ripple current)	Test time		2000 hours (φ 3:1000 hours)						
	Leakage current		The initial specified value or less						
	Percentage of capacitance change		Within ±20% of initial value (4WV: ±30%)						
	Tangent of the loss angle		200% or less of the initial specified value (4WV: 300%)						
Shelf life (85°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

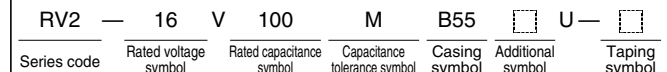


Coefficient of Frequency for Rated Ripple Current

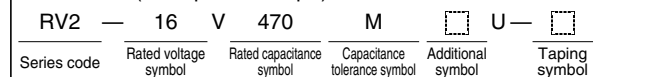
Rated voltage(V)	Frequency(Hz)			
	50 · 60	120	1k	10k · 100k
4 to 16	0.80	1	1.15	1.25
25 to 35	0.80	1	1.25	1.40
50	0.80	1	1.35	1.50

Part numbering system

• φ3 (example: 16V10µF)



• φ4 to φ6.3 (example: 16V47µF)



- 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 capacitance (µF)	Item	4				6.3				10				16				25				35				50			
		Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms	Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms	Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms	Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms	Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms	Case φ D(mm)	Casing symbol	ESR Ω	Rated ripple current mArms				
0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
0.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
2.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
4.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
22	3	B55	32	14	4	—	21	31	5	—	18	39	5	—	15	44	6.3	—	11	55	6.3	—	9.1	59	—	—	—	—	
33	4	—	21	31	5	—	14	44	5	—	12	48	6.3	—	10	63	6.3	—	7.0	67	—	—	—	—	—	—	—	—	
47	4	—	15	37	5	—	10	52	6.3	—	8.5	67	6.3	—	7.1	75	—	—	—	—	—	—	—	—	—	—	—	—	
100	5	—	7.0	63	6.3	—	5.0	89	6.3	—	4.0	98	6.3	—	3.3	103	—	—	—	—	—	—	—	—	—	—	—	—	
220	6.3	—	3.2	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

(Note) Rated ripple current : 85°C, 120Hz ; ESR : 20°C, 120Hz