Lowprofile Hight type capacitors

Lowprofile Hight:1.2mm Max.

GREEN CAP SMD

Specifications

Item		Performance
Category temperature range (˚C)		−55 to +125 (Above 85˚C use category voltage)
Leakage current (μA)		Refer to standard ratings table
Tolerance at rated capacitance (%)		±10% (Except J size), ±20% (120Hz)
Tangent of loss angle		Refer to standard ratings table (120Hz)
ESR		Refer to standard ratings table (100kHz)
Resistance to soldering heat		Test conditions: Soaking at 260˚C for 5 seconds
		Leakage current: The initial specified value or less (J Size) / The initial specified value or less (P,A2 Size)
		Percentage of capacitance change: Within ±20% of initial value (J Size) / Within ±10% of initial value (P,A2 Size)
		Tangent of loss angle: 150% or less of the initial specified value (J Size) / 150% or less of the initial specified value (P,A2 Size)
Characteristics at high and low temperature	−55˚C	Percentage of capacitance change: Within −20 to 0% of the initial value (J Size) / Within −10 to 0% of the initial value (P,A2 Size)
		Tangent of loss angle: Refer to standard rating table (J Size) / Refer to standard rating table (P,A2 Size)
	+85˚C	Leakage current: 1000% or less of the initial specified value (J Size) / 1000% or less of the initial specified value (P,A2 Size)
		Percentage of capacitance change: Within 0 to 15% of the initial value (J Size) / Within 0 to 10% of the initial value (P,A2 Size)
		Tangent of loss angle: Refer to standard rating table (J Size) / Refer to standard rating table (P,A2 Size)
	+125˚C	Leakage current data have been measured at derated voltage*
		Leakage current: 1250% or less of the initial specified value (J Size) / 1250% or less of the initial specified value (P,A2 Size)
		Percentage of capacitance change: Within 0 to 20% of the initial value (J Size) / Within 0 to 12% of the initial value (P,A2 Size)
		Tangent of loss angle: Refer to standard rating table (J Size) / Refer to standard rating table (P,A2 Size)
Damp heat, steady state (Humidity)		Test conditions: Left at 40˚C under 90 to 95% RH for 500 hours
		Leakage current: The initial specified value or less (J Size) / The initial specified value or less (P,A2 Size)
		Percentage of capacitance change: Within ±20% of initial value (J Size) / Within ±10% of initial value (P,A2 Size)
		Tangent of loss angle: 200% or less of the initial specified value (J Size) / 150% or less of the initial specified value (P,A2 Size)
Endurance (Load life)		Test conditions: Rated voltage applied at 85˚C for 2000 hours;
		Leakage current: The initial specified value or less (J Size) / The initial specified value or less (P,A2 Size)
		Percentage of capacitance change: Within ±20% of the initial value (J Size) / Within ±10% of the initial value (P,A2 Size)
		Tangent of loss angle: 200% or less of the initial specified value (J Size) / 150% or less of the initial specified value (P,A2 Size)
Failure rate		Less than 1% / 1000 hour (Refer to TECHNICAL NOTE)
Others		Conforms to IEC 60384-3 : 1989 (JIS C5101-3 : 1998)

* Relation between the rated and the 125˚C category voltage.

Rated voltage(V)	2.5	4	6.3	10	16	20	25
105˚C category voltage(V)	1.6	2.5	4	6.3	10	13	16

Dimension table

Rated capacitance (μF)	Rated capacitance code	2.5V e	4V G	6.3V J	10V A	16V C	20V D	25V E
0.1	104						A2	
0.15	154						A2	
0.22	224						A2	
0.33	334					P	A2	
0.47	474					P	A2	A2
0.68	684				P	P	A2	A2
1	105				P A2	J P	A2	A2
1.5	155			P A2	J P A2	P	A2	
2.2	225		A2	J P A2	J P A2	P A2	A2	
3.3	335		P A2	J P A2	J P A2	A2		
4.7	475	J A2	J P A2	J P A2	J P A2	A2		
6.8	685	J A2	J P A2	J P A2	P A2			
10	106	J A2	J P A2	J P A2	P A2			
15	156	A2	P A2	P A2	A2			
22	226	A2	P A2	A2				
33	336	P A2	A2	A2				
47	476	A2	A2					
68	686							

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Standard ratings

Rated voltage (V)	Rated capacitance (μF) (120Hz)	Marking	EIA size code	ELNA size code	Leakage current (μA, or less)	Tangent of the loss angle (less)(120Hz) −55°C	20°C	85°C	125°C	E.S.R. (Ω) (100kHz)	ELNA Part No.	Taping minimum packing pcs. (pcs/reel)	Note
2.5	4.7	eS	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0E475M-RJ	4,000	
	4.7	e475	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0E475M-RA2	3,000	*
	6.8	eW	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0E685M-RJ	4,000	
	6.8	e685	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0E685M-RA2	3,000	*
	10	eA	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0E106M-RJ	4,000	
	10	e106	3216L	A2	0.50	0.12	0.08	0.10	0.12	4.0	SYF-0E106M-RA2	3,000	*
	15	e156	3216L	A2	0.50	0.18	0.12	0.16	0.18	4.0	SYF-0E156M-RA2	3,000	*
	22	e226	3216L	A2	0.55	0.18	0.12	0.16	0.18	4.0	SYF-0E226M-RA2	3,000	*
	33	eN	2012	P	0.82	0.12	0.08	0.10	0.12	4.0	SYF-0E336M-RP	3,000	
	33	e336	3216L	A2	0.82	0.18	0.12	0.16	0.18	4.0	SYF-0E336M-RA2	3,000	
	47	e476	3216L	A2	1.17	0.18	0.12	0.16	0.18	4.0	SYF-0E476M-RA2	3,000	
4	2.2	G225	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0G225M-RA2	3,000	*
	3.3	GN	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-0G335M-RP	3,000	*
	3.3	G335	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0G335M-RA2	3,000	*
	4.7	GS	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF00G475M-RJ	4,000	
	4.7	GS	2012	P	0.50	0.12	0.08	0.10	0.12	5.5	SYF-0G475M-RP	3,000	*
	4.7	G475	3216L	A2	0.50	0.12	0.08	0.10	0.12	5.0	SYF-0G475M-RA2	3,000	*
	6.8	GW	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0G685M-RJ	4,000	
	6.8	GW	2012	P	0.50	0.12	0.08	0.10	0.12	5.5	SYF-0G685M-RP	3,000	*
	6.8	G685	3216L	A2	0.50	0.12	0.08	0.10	0.12	4.0	SYF-0G685M-RA2	3,000	*
	10	GA	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0G106M-RJ	4,000	
	10	GA	2012	P	0.50	0.15	0.10	0.12	0.15	5.5	SYF-0G106M-RP	3,000	
	10	G106	3216L	A2	0.50	0.15	0.10	0.13	0.15	4.0	SYF-0G106M-RA2	3,000	
	15	GE	2012	P	0.60	0.15	0.10	0.12	0.15	4.5	SYF-0G156M-RP	3,000	
	15	G156	3216L	A2	0.60	0.15	0.10	0.13	0.15	4.0	SYF-0G156M-RA2	3,000	
	22	GJ	2012	P	0.88	0.15	0.10	0.12	0.15	4.5	SYF-0G226M-RP	3,000	
	22	G226	3216L	A2	0.88	0.18	0.12	0.16	0.18	2.8	SYF-0G226M-RA2	3,000	
	33	G336	3216L	A2	1.32	0.18	0.12	0.16	0.18	2.8	SYF-0G336M-RA2	3,000	
	47	G476	3216L	A2	1.88	0.24	0.16	0.19	0.24	2.8	SYF-0G476M-RA2	3,000	
6.3	1.5	JE	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-0J155M-RP	3,000	
	1.5	J155	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0J155M-RA2	3,000	
	2.2	JJ	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0J225M-RJ	4,000	
	2.2	JJ	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-0J225M-RP	3,000	
	2.2	J225	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0J225M-RA2	3,000	
	3.3	JN	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-0J335M-RJ	4,000	
	3.3	JN	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-0J335M-RP	3,000	
	3.3	J335	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-0J335M-RA2	3,000	
	4.7	JS	1608	J	0.50	0.30	0.20	0.25	0.30	8.5	SYF-0J475M-RJ	4,000	
	4.7	JS	2012	P	0.50	0.12	0.08	0.10	0.12	6.0	SYF-0J475M-RP	3,000	
	4.7	J475	3216L	A2	0.50	0.12	0.08	0.10	0.12	4.0	SYF-0J475M-RA2	3,000	
	6.8	JW	1608	J	0.50	0.30	0.20	0.25	0.30	8.0	SYF-0J685M-RJ	4,000	
	6.8	JW	2012	P	0.50	0.12	0.08	0.10	0.12	6.0	SYF-0J685M-RP	3,000	
	6.8	J685	3216L	A2	0.50	0.15	0.10	0.13	0.15	4.0	SYF-0J685M-RA2	3,000	
	10	JA	1608	J	6.30	0.30	0.20	0.25	0.30	8.0	SYF-0J106M-RJ	4,000	
	10	JA	2012	P	0.63	0.15	0.10	0.12	0.15	6.0	SYF-0J106M-RP	3,000	
	10	J106	3216L	A2	0.63	0.12	0.08	0.10	0.12	4.0	SYF-0J106M-RA2	3,000	
	15	JE	2012	P	0.94	0.24	0.16	0.19	0.24	5.0	SYF-0J156M-RP	3,000	
	15	J156	3216L	A2	0.94	0.18	0.12	0.16	0.18	4.0	SYF-0J156M-RA2	3,000	
	22	J226	3216L	A2	1.38	0.21	0.14	0.18	0.21	2.8	SYF-0J226M-RP	3,000	
	33	J336	3216L	A2	2.07	0.24	0.16	0.19	0.24	2.8	SYF-0J336M-RA2	3,000	

The asterisk in the Note row indicates the reduced frequency of manufacture due to miniaturization, etc.
For new design, it is recommended to choose a smaller product with a higher voltage and same capacity.

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Standard ratings

Rated voltage (V)	Rated capacitance (μF) (120Hz)	Marking	EIA size code	ELNA size code	Leakage current (μA, or less)	Tangent of the loss angle (less)(120Hz) –55°C	20°C	85°C	125°C	E.S.R. (Ω) (100kHz)	ELNA Part No.	Taping minimum packing pcs. (pcs/reel)	Note
10	0.68	AW	2012	P	0.50	0.12	0.08	0.10	0.12	28.0	SYF-1A684M-RP	3,000	
	1	AA	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-1A105M-RP	3,000	
	1	A105	3216L	A2	0.50	0.09	0.06	0.08	0.09	8.0	SYF-1A105M-RA2	3,000	
	1.5	AE	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-1A155M-RJ	4,000	
	1.5	AE	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-1A155M-RP	3,000	
	1.5	A155	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-1A155M-RA2	3,000	
	2.2	AJ	1608	J	0.50	0.30	0.20	0.25	0.30	13.0	SYF-1A225M-RJ	4,000	
	2.2	AJ	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-1A225M-RP	3,000	
	2.2	A225	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-1A225M-RA2	3,000	
	3.3	AN	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-1A335M-RJ	4,000	
	3.3	AN	2012	P	0.50	0.12	0.08	0.10	0.12	10.0	SYF-1A335M-RP	3,000	
	3.3	A335	3216L	A2	0.50	0.12	0.08	0.10	0.12	8.0	SYF-1A335M-RA2	3,000	
	4.7	AS	1608	J	4.70	0.30	0.20	0.25	0.30	10.0	SYF-1A475M-RJ	4,000	
	4.7	AS	2012	P	0.50	0.12	0.08	0.10	0.12	6.0	SYF-1A475M-RP	3,000	
	4.7	A475	3216L	A2	0.50	0.12	0.08	0.10	0.12	4.0	SYF-1A475M-RA2	3,000	
	6.8	AW	2012	P	0.68	0.15	0.10	0.13	0.15	6.0	SYF-1A685M-RP	3,000	
	6.8	A685	3216L	A2	0.68	0.12	0.08	0.10	0.12	4.0	SYF-1A685M-RA2	3,000	
	10	AA	2012	P	1.00	0.21	0.14	0.18	0.21	6.0	SYF-1A106M-RP	3,000	
	10	A106	3216L	A2	1.00	0.12	0.08	0.10	0.12	4.0	SYF-1A106M-RA2	3,000	
	15	A156	3216L	A2	1.50	0.24	0.12	0.15	0.25	4.0	SYF-1A156M-RA2	3,000	
16	0.33	CN	2012	P	0.50	0.09	0.06	0.07	0.09	28.0	SYF-1C334M-RP	3,000	
	0.47	CS	2012	P	0.50	0.09	0.06	0.07	0.09	28.0	SYF-1C474M-RP	3,000	
	0.68	CW	2012	P	0.50	0.09	0.06	0.07	0.09	28.0	SYF-1C684M-RP	3,000	
	1	CA	1608	J	0.50	0.30	0.20	0.25	0.30	10.0	SYF-1C105M-RJ	4,000	
	1	CA	2012	P	0.50	0.09	0.06	0.07	0.09	25.0	SYF-1C105M-RP	3,000	
	1.5	CE	2012	P	0.50	0.12	0.08	0.10	0.12	20.0	SYF-1C155M-RP	3,000	
	2.2	CJ	2012	P	0.50	0.12	0.08	0.10	0.12	20.0	SYF-1C225M-RP	3,000	
	2.2	C225	3216L	A2	0.50	0.09	0.06	0.08	0.09	8.0	SYF-1C225M-RA2	3,000	
	3.3	C335	3216L	A2	0.50	0.09	0.06	0.08	0.09	6.0	SYF-1C335M-RA2	3,000	
	4.7	C475	3216L	A2	0.75	0.09	0.06	0.08	0.09	6.0	SYF-1C475M-RA2	3,000	
20	0.1	D104	3216L	A2	0.50	0.09	0.06	0.08	0.09	28.0	SYF-1D104M-RA2	3,000	
	0.15	D154	3216L	A2	0.50	0.09	0.06	0.08	0.09	25.0	SYF-1D154M-RA2	3,000	
	0.22	D224	3216L	A2	0.50	0.09	0.06	0.08	0.09	23.0	SYF-1D224M-RA2	3,000	
	0.33	D334	3216L	A2	0.50	0.09	0.06	0.08	0.09	20.0	SYF-1D334M-RA2	3,000	
	0.47	D474	3216L	A2	0.50	0.09	0.06	0.08	0.09	15.0	SYF-1D474M-RA2	3,000	
	0.68	D684	3216L	A2	0.50	0.09	0.06	0.08	0.09	14.0	SYF-1D684M-RA2	3,000	
	1	D105	3216L	A2	0.50	0.09	0.06	0.08	0.09	10.0	SYF-1D105M-RA2	3,000	
	1.5	D155	3216L	A2	0.50	0.09	0.06	0.08	0.09	9.0	SYF-1D155M-RA2	3,000	
	2.2	D225	3216L	A2	0.50	0.09	0.06	0.08	0.09	7.0	SYF-1D225M-RA2	3,000	
25	0.47	E474	3216L	A2	0.50	0.09	0.06	0.08	0.09	15.0	SYF-1E474M-RA2	3,000	
	0.68	E684	3216L	A2	0.50	0.09	0.06	0.08	0.09	14.0	SYF-1E684M-RA2	3,000	
	1	E105	3216L	A2	0.50	0.09	0.06	0.08	0.09	13.0	SYF-1E105M-RA2	3,000	

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