



Distributeur : JBG-METAFIX

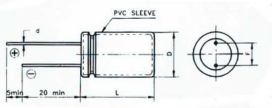
Features

- Load life of 1,000 hours(for capacitors of case dia. 8mm or less) or 2,000 hours(for case dia. 10mm or more)at 105℃.
- Wide operating temperature range.
- Suitable to use for industrial equipment.
- Case Size larger than 5mm diameter has safety vents.

Characteristics

Item	Characteristics										
Operating temperature range	-40~+105℃(for 6.3V to 250V) -25~+105℃(for 350V to 450V)										
Rated voltage range	6.3~450V										
Capacitance range	0.1-15,000 μ F										
Capacitance tolerance (at20℃,120Hz)	±20%(M)										
Leakage current(I) (at20℃)	After 2 minute application of rated voltage. I≤0.01CV or 3 μ A, whichever is greater (for 6.3v to 100v).						After 2 minute application of rated voltage. I≤0.02CV±20 μ A(for 160v to 450v).				
	Where C: Nominal capacitance in μ F,V:Rated voltage in V.										
Dissipation factor(Tan δ) (at 20℃, 120Hz)	W.V.(V)	6.3	10	16	25	35	50	63	100	160-250	350-450
	Tan δ (max.)	0.24	0.20	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.20
	For capacitance of more than 1,000 μ F, add 0.02 for every increase of 1,000 μ F.										
Low temperature characteristics (at 120Hz)	W.V.(v)	6.3		10	16~100		160~250		350~450		
	impedance ratio Z-25℃/Z+20℃	4		3	2		4		6		
	ZT/Z+20℃(max)	Z-40℃/Z+20℃		8	6	4		8		-	
Load life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage has been applied for 2,000 hours (1,000 hours for case dia, 8 mm or less)at 105℃										
	Capacitance change					≤20% of the initial value					
	tan δ					≤200% of the initial specified value					
	I					≤The initial specified value					
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them at 105℃ for 500 hours without voltage applied										
	Capacitance change					≤20% of the initial value					
	tan δ					≤150% of the initial specified value					
	I					≤200% of the initial specified value					
Others	Satisfies characteristic W of JIS C5141										

Dimensions



D±0.5	5	6.3	8	10	13		16	18	22					
L	±1.0				±2.0									
	11	11	12	12	16	20	20	25	25	30	35	35	40	35
F±0.5	2.0	2.5	3.5	5.0			7.5			10.0				
d±0.05	0.5		0.6			0.8								

Ripple Current Multipliers

Frequency multiplying factor

W.V.(v)	Freq(Hz)		50	120	300	1k	≥10k
	Cap.(μ F)						
6.3~100	0.1~47		0.75	1.00	1.35	1.57	2.00
	100~470		0.80	1.00	1.23	1.34	1.50
	1,000~15,000		0.85	1.00	1.10	1.13	1.15
160~450	0.47~470		0.80	1.00	1.25	1.40	1.60

Temperature multiplying factor

Temperature (℃)	70	85	105
Factor	1.78	1.40	1.00



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Case Size DxL(mm) and Maximun Ripple current

(mA rms/at 105℃,120Hz)

W.V.(v)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
Cap.(μ F)														
0.1						5×11 1.3		5×11 2.6						
0.22						5×11 2.6		5×11 5.8						
0.33						5×11 4.3		5×11 8.7						
0.47						5×11 6.2		5×11 11	5×11 8.2	5×11 8.2	5×11 8.2	8×12 8.6	8×12 8.6	8×12 8.6
1						5×11 13		5×11 16	5×11 12	5×11 12	6.3×11 14	8×12 13	8×12 13	8×12 13
2.2						5×11 22		5×11 24	6.3×11 20	6.3×11 20	6.3×11 20	8×12 19	10×12 20	10×12 20
3.3						5×11 27		5×11 30	6.3×11 25	6.3×11 25	8×12 26	10×12 24	10×16 28	10×16 28
4.7				5×11 27	5×11 29	5×11 32	5×11 34	5×11 36	8×12 32	8×12 32	10×12 34	10×16 33	10×16 33	10×16 33
10			5×11 37	5×11 39	5×11 42	5×11 47	5×11 49	5×11 59	8×12 59	8×12 49	10×12 49	10×16 55	10×20 53	10×20 53
22		5×11 49	5×11 55	5×11 58	5×11 63	5×11 69	5×11 83	6.3×11 94	8×12 82	8×12 91	10×12 91	10×16 91	10×20 100	10×20 113
33	5×11 55	5×11 60	5×11 67	5×11 71	5×11 77	6.3×11 96	6.3×11 101	10×12 122	10×16 111	10×12 128	10×16 128	10×20 138	10×25 138	10×25 140
47	5×11 65	5×11 71	5×11 80	5×11 85	6.3×11 105	6.3×11 115	8×12 129	10×16 164	10×16 153	13×20 153	13×20 169	13×25 176	16×30 191	16×35 191
100	5×11 95	5×11 104	5×11 116	6.3×11 142	8×12 163	8×12 178	10×12 200	10×20 264	10×20 267	16×25 277	16×25 277	16×30 300	18×40 315	22×35 333
220	5×11 141	6.3×11 176	6.3×11 196	8×12 224	10×12 257	10×16 318	10×20 370	13×25 501	18×35 509	18×40 540	22×35 570			
330	6.3×11 196	6.3×11 215	8×12 256	10×12 291	10×16 356	10×20 430	13×20 525	16×25 690	16×25 698	22×35 698				
470	6.3×11 234	8×12 273	8×12 306	10×12 348	10×16 424	13×20 594	13×25 690	16×30 891	16×30 883	22×40				
1,000	8×12 364	10×12 424	10×16 536	10×20 632	13×20 791	13×25 955	16×25 1,225	16×35 1,664						
2,200	10×16 624	10×20 748	13×20 958	13×25 1,120	16×25 1,346	16×35 1,686	22×35 2,104							
3,300	10×20 812	13×20 1,016	13×25 1,227	16×25 1,454	16×35 1,788	22×35 2,284	22×40 2,513							
4,700	13×20 1,067	13×25 1,230	16×25 1,535	16×35 1,863	18×40 2,219	22×40 2,622								
6,800	13×25 1,331	16×25 1,590	16×35 1,976	18×40 2,327	22×40 2,712									
10,000	16×25 1,657	16×30 1,886	18×40 2,289	22×40 2,788										
15,000	16×35 2,115	18×35 2,350	22×35 2,747											

Note:10×12 can also be 8×15 as per customer's request.



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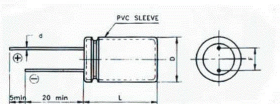
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Low temperature characteristics (at 120Hz)	W.V.(v)				6.3	10	16～100	160～250	350～450		
	Impedance ratio Z/T+20℃ (max)	Z-25℃/Z+20℃			4	3	2	4	6		
		Z-40℃/Z+20℃			8	6	4	8	-		
Load life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage has been applied for 2,000 hours (1,000 hours for case dia. 8 mm or less) at 105℃										
	Capacitance change						≤20% of the initial value				
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F±0.5	2.0	2.5	3.5		5.0			7.5					10.0		
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0.22						5×11 2.6		5×11 5.8						
0.33						5×11 4.3		5×11 8.7						
0.47						5×11 6.2	5×11 10	5×11 11	5×11 8.2	5×11 8.2	5×11 8.2	8×12 8.6	8×12 8.6	8×12 8.6
1						5×11 13	5×11 14	5×11 16	5×11 12	5×11 12	5×11 14	8×12 13	8×12 13	8×12 13
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4.7				5×11 27	5×11 29	5×11 32	5×11 34	5×11 36	8×12 32	8×12 32	10×12 34	10×16 33	10×16 33	10×16 33
10			5×11 37	5×11 39	5×11 42	5×11 47	5×11 49	5×11 59	6.3×11 49	10×12 49	10×12 55	10×16 53	10×20 53	13×20 61
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33	5×11 55	5×11 60	5×11 67	5×11 71	5×11 77	6.3×11 96	6.3×11 101	10×12 122	10×20 111	13×20 128	13×20 128	16×25 138	16×25 138	16×30 140
47	5×11 65	5×11 71	5×11 80	5×11 85	5×11 105	6.3×11 115	6.3×11 129	10×16 164	13×20 153	13×20 153	16×25 169	16×25 176	16×35 191	16×35 191
68	5×11 85	5×11 96	5×11 101	6.3×11 122	8×12 138	8×12 140	10×16 156	10×20 175	16×25 196	16×25 215	18×32 238	18×40 255	22×35 276	22×35 310
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