

## CAPACITORS

## ALUMINIUM ELECTROLYTIC HIGH TEMP. DJ3

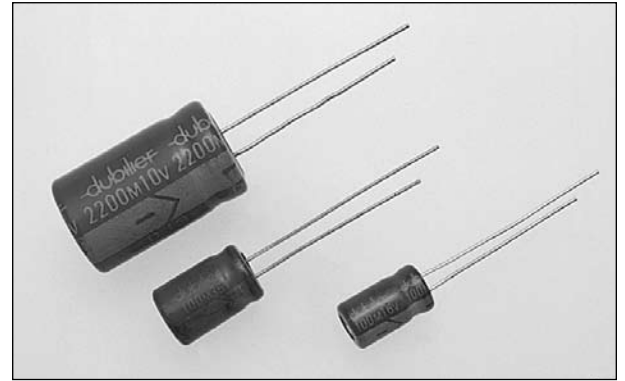
SECTION 1

- Miniaturised case sizes (compatible with CEBM)
- Long-life grade (up to 2000 hours @105°C)
- Lowest cost high performance electrolytic

The DJ3 offers many excellent characteristics for a multitude of roles.

Its basic specification of high-temperature and small size allows use as a switching power-supply output capacitor. Smaller values are usable in all high-temperature circuits, for example, in monitors and automotive applications.

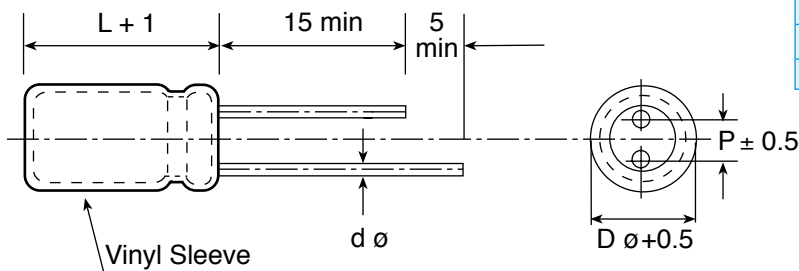
At lower temperatures, DJ3s offer life-times of well over 10-15 years, for high reliability equipment.



### SPECIFICATION

Item	Performance Characteristics	
Rated Working Voltage Range	6.3 to 100V DC	160 to 450V DC
Operating Temperature Range	-40 to +105°C	-25 to +105°C
Nominal Capacitance Range	0.1 to 15000µF	0.47 to 220µF
Capacitance Tolerance	± 20%(120Hz, +20°C)	
Leakage Current	I ≤ 0.01CV or 3[µA] whichever is greater	I ≤ 0.06CV after 2 minutes application of rated working voltage at +20°C
tan δ (120Hz, +20°C)	Working voltage [V]	6.3    10    16    25    35    50    63    100
	tan δ max.	0.22   0.19   0.16   0.14   0.12   0.10   0.09   0.07
Maximum Permissible Ripple Current	Working voltage [V]	160    200    250    350    400    450
	tan δ max.	0.15   0.15   0.15   0.20   0.24   0.24
	For capacitance value > 1000µF, add 0.02 per extra 1000µF Refer to standard products table (120Hz, +105°C) Correction factor for frequency	
	W.V. [VDC]	Freq. [Hz]    60    120    1K    10K    100K
6.3 ~ 50	0.1 ~ 330	0.85    1    1.30    1.40    1.55
	470 ~ 3300	0.95    1    1.15    1.20    1.25
	≥ 4700	0.95    1    1.10    1.20    1.20
63 ~ 100	0.47 ~ 33	0.75    1    1.55    1.65    1.80
	47 ~ 220	0.75    1    1.40    1.60    1.65
≥ 160	≥ 330	0.80    1    1.30    1.35    1.40
	1 ~ 220	0.70    1    1.30    1.70    1.70

### OUTLINE DRAWING



Dø	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dø	0.5		0.6			0.8	

### ORDERING INFORMATION

<b>DJ3</b> Range	<b>100</b> Capacitance µf	<b>16</b> Voltage	<b>TA</b> Options TA = Tape/Ammo Blank = Loose
TA = 5mm pitch. For others add pitch e.g. TA 2mm = 2mm pitch.			

SPECIFICATION

Low Temperature Characteristics	Impedance ratio max. at 120Hz									
	Working voltage [V]	6.3	10	16	25	35	50	63	100	
	-25°C/+20°C	4	3	2	2	2	2	2	2	2
	-40°C/+20°C	8	6	4	3	3	3	3	3	3
	Working voltage [V]	160	200	250	350	400	450			
	-25°C/+20°C	3	3	3	6	6	15			
	For capacitance value > 1000µF: Add 0.5 per extra 1000µF for -25°C/+20°C Add 1.0 per extra 1000µF for -40°C/+20°C									
Washability	5 mins in Freon TE, Arklone AM or equivalents									
High Temperature Loading	Test Conditions									
	Duration	2000 hours (1000 hours for ≤ ø8mm. products)								
	Ambient temperature	+105°C								
	Applied voltage	DC voltage with maximum permissible ripple current specified at +105°C (Sum of the DC voltage and super-imposed peak AC voltage for maximum permissible ripple current should be equal to rated DC working voltage)								
	Post test requirements at +20°C									
	Leakage current	≤ Initial specified value								
	Capacitance change	≤ ± 20% of initial measured value								
	tan δ	≤ 200% of initial specified value								
Shelf Life	Test Conditions	Post test requirements at +20°C								
	Duration	Ambient temperature Same limits for high temperature loading								
	Applied voltage									

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SECTION 1

### RANGE

WV	6.3	10	16	25	35	50	63	100	160
µF	øxl/mm	øxl/mm	øxl/mm	øxl/mm	øxl/mm	øxl/mm	øxl/mm	øxl/mm	øxl/mm
0.1							→	5x11	6.3x11
0.22							→	5x11	6.3x11
0.33							→	5x11	6.3x11
0.47							→	5x11	6.3x11
1.0							→	5x11	6.3x11
2.2							→	5x11	6.3x11
3.3							→	5x11	8x11.5
4.7							→	5x11	8x11.5
10						→	5x11	6.3x11	10x12.5
22					→	5x11	6.3x11	8x11.5	10x20
33				→	5x11	6.3x11	6.3x11	10x12.5	12.5x20
47			→	5x11	6.3x11	6.3x11	8x11.5	10x16	12.5x25
100	→	5x11	6.3x11	6.3x11	8x11.5	8x11.5	10x17	12.5x20	16x25
220	→	6.3x11	8x11.5	8x11.5	10x12.5	10x16	10x20	16x25	18x35.5
330	6.3x11	8x11.5	8x11.5	10x12.5	10x16	10x20	12.5x20	16x25	
470	8x11.5	8x11.5	10x12.5	10x16	10x20	12.5x20	12.5x20	16x31.5	
1000	10x12.5	10x16	10x20	12.5x20	12.5x25	16x25	16x31.5		
2200	12.5x20	12.5x20	12.5x25	16x25	16x31.5	18x35.5			
3300	12.5x20	12.5x25	16x25	16x31.5	18x35.5				
4700	16x25	16x25	16x31.5	18x35.5	18x40				
6800	16x25	16x31.5	18x35.5						
10000	16x31.5	18x35.5							
15000	18x35.5								

### HIGH VOLTAGE RANGE

WV	200	250	350	400	450
µF					
0.47		6.3x11	8x11.5	8x11.5	8x11.5
1	6.3x11	6.3x11	10x12.5	10x12.5	10x16
2.2	6.3x11	8x11.5	10x12.5	10x12.5	10x20
3.3	8x11.5	10x12.5	10x16	10x20	12.5x20
4.7	10x12.5	10x12.5	10x20	10x20	12.5x25
10	10x16	10x20	12.5x20	12.5x25	16x25
22	12.5x20	12.5x20	16x25	16x25	16x31.5
33	12.5x20	12.5x25	16x25	16x31.5	18x35.5
47	12.5x25	16x25	16x31.5	18x35.5	
100	16x25	16x31.5			

### RIPPLE CURRENTS (mA, rms) AT 105 °C, 120Hz

UF/Volts	6.3v	10v	16v	25v	35v	50v	63v	100v	160v	200v	250v	400v	450v
0.47uf					→	7	8	10	12	12	12	18	11
1.0uf					→	12	12	15	17	17	17	30	19
2.2uf					→	18	20	22	25	25	29	35	29
3.3uf					→	25	24	29	36	36	42	41	35
4.7uf					→	30	34	37	43	50	50	57	50
10uf					→	50	55	65	70	80	80	97	75
22uf			→	60	65	75	90	115	130	135	155	170	110
33uf		→	70	75	85	105	110	160	175	190	190	200	205
47uf		→	85	90	104	125	145	210	230	220	230	245	250
100uf	100	110	135	145	190	210	260	385	330	335	340		
220uf	165	180	235	250	315	400	465	590	500	515	525		
330uf	193	255	285	355	440	535	650	720	850	920			
470uf	280	305	395	470	580	730	800	875	980				
1000uf	470	570	700	821	995	1110	1200						
2200uf	930	1010	1150	1230	1450	1340							
3300uf	1100	1220	1350	1450	1660								
4700uf	1320	1410	1560	1690									
6800uf	1490	1610	1790										
10000uf	1830	1980											
15000uf	2280												