



益華電子工業股份有限公司
ETR ELECTRONICS CO., LTD.

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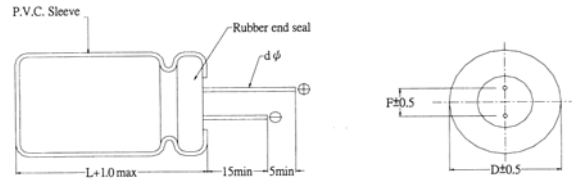
ALUMINUM ELECTROLYTIC CAPACITOR

Series: GR

Features:

- For general purpose
- Life 2000 hours at +85°C
- Wide CV value range
- Safety volt construction products

Diagram of Dimensions (unit:mm) :



Specifications:

- Operating Temperature : -40 to +85°C
- Rated Working Voltage : 6.3V to 100VDC
- Normal Capacitance : 0.1 to 22000uF
- Capacitance Tolerance : ±20%(120hZ, +20 °C)

Dφ	5	6.3	8	10	13	16	18	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	12.0
dφ	0.5		0.6			0.8			

Case Size Table

Working voltage (V)	6.3	10	16	25	35	50	63	100
Capacitance (uF)	Case Size (D X L mm)							
0.1					5X11	5X11	5X11	5X11
0.22					5X11	5X11	5X11	5X11
0.33					5X11	5X11	5X11	5X11
0.47					5X11	5X11	5X11	5X11
1.0					5X11	5X11	5X11	5X11
2.2					5X11	5X11	5X11	5X11
3.3					5X11	5X11	5X11	5X11
4.7					5X11	5X11	5X11	5X11
10			5X11	5X11	5X11	5X11	5X11	6.3X11
22			5X11	5X11	5X11	5X11	6.3X11	8X11
33		5X11	5X11	5X11	5X11	6.3X11	6.3X11	8X11
47		5X11	5X11	5X11	6.3X11	6.3X11	8X11	10X16
100	5X11	5X11	6.3X11	6.3X11	8X11	8X11	10X13	10X17
220	6.3X11	6.3X11	6.3X11	8X11	8X14	10X16	10X21	13X21
330	6.3X11	6.3X11	8X11	8X11	10X16	10X17	10X21	16X26
470	6.3X11	8X11	8X11	8X14	10X16	10X20	13X21	16X32
1000	8X11	8X14	10X16	10X17	13X21	13X26	16X26	18X42
2200	10X15	10X17	10X20	13X21	16X26	16X32	16X36	25X50
3300	10X20	13X21	13X21	16X26	16X32	18X36	22X42	
4700	13X21	13X21	16X26	16X36	18X36	22X36	25X50	
6800	16X26	16X26	16X36	18X36	18X36	22X42	30X46	
8200	16X32	18X36	18X42	22X46	22X50	30X46		
10000	16X32	18X32	18X42	22X46	25X50	30X46		
15000	18X36	18X36	22X50	25X50				
22000	22X40	22X50	22X50	30X46				



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ALUMINUM ELECTROLYTIC CAPACITOR

Series: HR

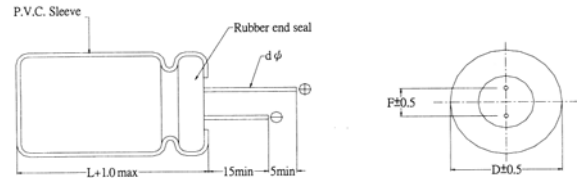
Features:

High temperature

Life 2000 hours at +105°C

Applications: switching power supply, automotive electric products, and other commercial equipments.

Diagram of Dimensions (unit:mm) :



Specifications:

Operating Temperature : - 40 to + 105°C

Rated Working Voltage : 6.3V to 100VDC

Normal Capacitance : 0.1 to 15000uF

Capacitance Tolerance : ±20%(120hZ, +20 °C)

D φ	5	6.3	8	10	13	16	18	22
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
d φ	0.5		0.6			0.8		

Case Size Table

Working voltage (V)	6.3	10	16	25	35	50	63	100
Capacitance (uF)	Case Size (D X L mm)							
0.1					5X11	5X11	5X11	5X11
0.22					5X11	5X11	5X11	5X11
0.33					5X11	5X11	5X11	5X11
0.47					5X11	5X11	5X11	5X11
1.0					5X11	5X11	5X11	5X11
2.2					5X11	5X11	5X11	5X11
3.3					5X11	5X11	5X11	5X11
4.7					5X11	5X11	5X11	5X11
10			5X11	5X11	5X11	5X11	5X11	6.3X11
22			5X11	5X11	5X11	5X11	6.3X11	8X11
33		5X11	5X11	5X11	5X11	6.3X11	6.3X11	8X11
47	5X11	5X11	5X11	5X11	6.3X11	6.3X11	8X11	10X16
100	5X11	5X11	6.3X11	6.3X11	8X11	8X11	10X13	10X17
220	5X11	6.3X11	6.3X11	8X11	8X14	10X16	10X21	13X21
330	6.3X11	6.3X11	8X11	8X11	10X16	10X17	10X21	16X26
470	6.3X11	8X11	8X11	8X14	10X16	10X20	13X21	16X32
1000	8X11	8X14	10X16	10X17	13X21	13X26	16X26	
2200	10X15	10X17	10X20	13X21	16X26	16X32		
3300	10X20	13X21	13X21	16X26	16X32	18X36		
4700	13X21	13X21	16X26	16X32	18X36	22X36		
6800	16X26	16X32	16X26	18X36	18X36	22X42		
10000	16X32	18X36	18X36	18x42				
15000	18X36	18X42						