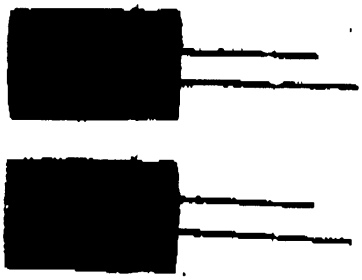
GENERAL PURPOSE RADIAL CAPACITORS

GPR series General Purpose 85°c 一般標準品



- 本系列為高 CV 值，適用於一般民生電子產品，有防爆孔設計，在 85°c 常溫下，耐用 2000 小時。
- Wide CV value range for general purpose.
- Safely vent construction products, GPR series are guaranteed 2,000 hours at 85°c.

specifications

No.	Item	Performance	
1	使用溫度範圍 Operating Temperature Range	-40 to +85°c	-25 to +85°c
2	定格電壓範圍 Rated Working Voltage Range	6.3 ~ 100v.DC	160 ~ 450v.DC
3	靜電容量範圍 Nominal Capacitance Range	0.1 ~ 22000μF	0.47 ~ 820μF
4	靜電容量容許差 Capacitance Tolerance	±20% (at +20°c ,120Hz)	
5	漏洩電流 Leakage Current	I=0.01CV or 3(μA) max	I≤0.03CV + 30(μA) max
		Whichever is greater after 3 minutes.	I :Leakage Current (μA) C:Rated Capacitance (μF) V:Working Voltage(v)
6	損失角 Dissipation Factor(tanδ) (120Hz\+20°c)		

Working Voltage	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
tanδ max.	0.22	0.2	0.12	0.16	0.12	0.1	0.08	0.08	0.2	0.2	0.15	0.20	0.20	0.20

Add 0.02 per 1000 μF for more than 1000μF.

7	容許電流 Ripple Current	Refer to standard products table (120Hz, +85°c). Correction factor for frequency.

Frequency (Hz)	50/60	120	1K	10K
Correction factor(Multiplier)	0.7	1	1.3	1.7

8	溫度特性(at 120 Hz) Characteristics at low temperature (stability at 120 Hz)	

Working Voltage	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
-25°c/+20°c	4	3	2	2	2	2	2	2	2	3	3	5	12	15
-40°c/+20°c	8	6	4	4	3	3	3	3						

For capacitance value > 1000 μF, Add 0.5 per another 1000 μF for -25°c/+25°c.
Add 1.0 per another 1000μF for -40°c/+20°c.

9	高溫負荷特性 High Temperature Loading	After 2000hrs. application of DC rated working voltage at +85°c, The capacitor shall meet the following limits:

Post test requirements at +20°c.

Leakage current	≤the initial specified value
Capacitance change	≤±20% of initial measured value
Dissipation Factor(tanδ)	≤150% of initial specified value

10	高溫無負荷特性 Shelf Life	After storage for 1000hrs. at +85°c with no voltage applied. Post test requirements at +20°c same limits for high temperature loading.

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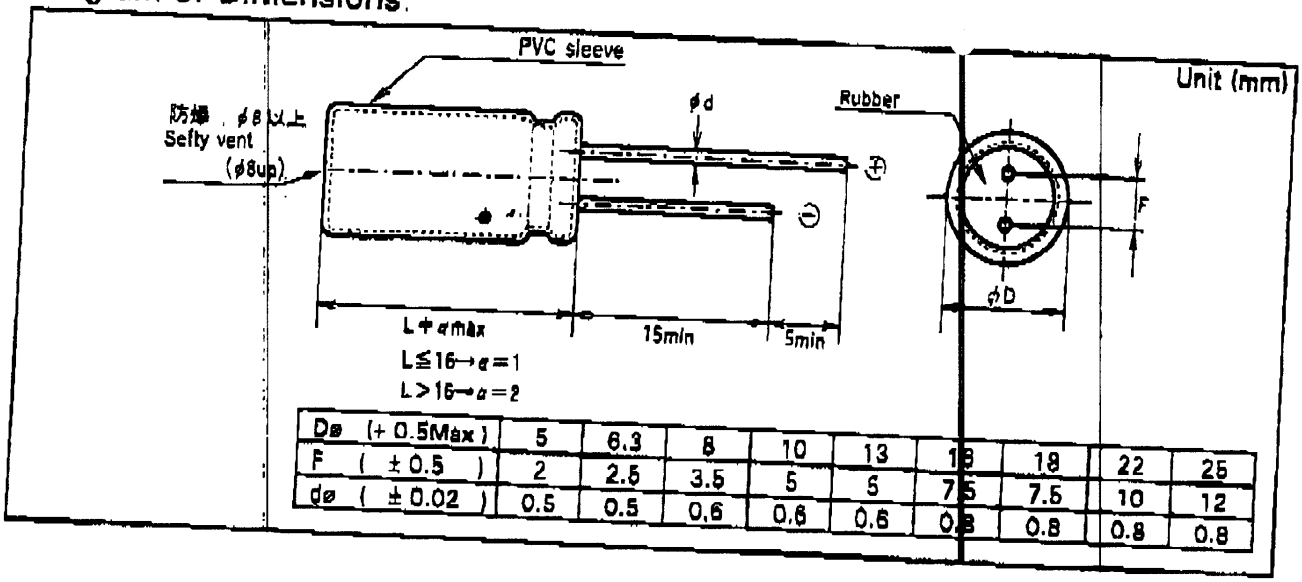
Diagram of Dimensions.



Dø (+0.5Max)	5	6.3	8	10	13	16	18	22	25
F (±0.5)	2	2.5	3.5	5	5	7.5	7.5	10	12
dø (±0.02)	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8	0.8

Case Size Table

øDXL(mm)

W.V.(SV) / μF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (126)
0.1					→	5X11		5X11
0.22					→	5X11		5X11
0.33					→	5X11		5X11
0.47					→	5X11		5X11
1.0					→	5X11		5X11
2.2					→	5X11		5X11
3.3					→	5X11		5X11
4.7					→	5X11		5X11
10			→	5X11	5X11	5X11	5X11	6.3X11
22			→	5X11	5X11	5X11	6.3X11	8X11
33		→	5X11	5X11	5X11	6.3X11	6.3X11	10X13
47		→	5X11	5X11	6.3X11	6.3X11	8X11	10X16
100	→	5X11	6.3X11	6.3X11	8X11	8X11	10X13	13X21
220	→	6.3X11	6.3X11	8X11	10X13	10X16	10X21	16X26
330	→	6.3X11	8X11	10X13	10X16	10X21	13X21	16X26
470	6.3X11	8X11	8X11	10X16	10X16	13X21	13X26	16X32
1,000	8X11	10X13	10X16	10X21	13X21	16X26	16X32	18X42
2,200	10X21	10X21	13X21	13X26	16X26	16X36	18X36	25X50
3,300	13X21	13X21	13X26	16X26	16X36	18X36	22X42	
4,700	13X26	13X26	16X26	16X36	18X36	22X41	25X50	
6,800	16X26	16X26	16X36	18X36	22X41	25X50	30X46	
8,200	16X32	18X36	18X42	22X46	22X50	30X46		
10,000	16X32	18X32	18X36	22X41	25X50	30X46		
15,000	18X36	18X36	22X50	25X50				
22,000	22X40	22X50	25X50	30X46				

※空格部份膠管所標示的電壓以" → " 右方一格表示

※All blank dimensions is the same dimensions as " → " point to.

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Case Size Table

øD×L(mm)

W.V. (SV) / μF	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.47	6.3×11	6.3×11	6.3×11	8×11	8×11	8×11
1.0	6.3×11	6.3×11	6.3×11	8×11	8×11	8×11
2.2	6.3×11	6.3×11	6.3×11	8×11	8×11	10×13
3.3	6.3×11	6.3×11	8×11	10×13	10×13	10×16
4.7	6.3×11	8×11	8×11	10×13	10×16	10×18
10	8×11	10×13	10×16	10×21	13×21	13×21
22	10×16	10×21	13×21	13×21	13×26	16×26
33	10×21	13×21	13×21	13×26	16×26	16×32
47	13×21	13×21	13×26	16×26	16×32	18×36
100	13×26	16×26	16×32	18×36	22×41	
150	16×36	18×42	22×36	22×41	22×50	
220	16×36	18×42	22×36	22×50		
330	18×42	22×41	22×46			
470	22×41	22×46	25×46			
560	22×46	22×50	25×50			
680	22×50	25×50				
820	25×50					

Permissible Ripple Current

Max ripple current: mA (rms) (at 85°c,120Hz)

W.V. (SV) / μF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.1-0.47						8		10	10	10	10	11	12	12
1.0						13		16	16	16	18	18	18	19
2.2						21		27	28	29	31	28	28	29
3.3						30		40	35	36	40	35	35	35
4.7				30	35	40	40	45	41	45	49	40	45	50
10			45	45	50	60	65	75	70	72	81	70	70	75
22		60	60	70	80	90	110	130	120	126	144	110	110	110
33	65	75	85	95	105	120	140	170	170	160	171	140	140	150
47	80	90	100	120	135	150	180	230	220	193	210	170	190	220
100	130	140	170	180	220	250	280	380	350	330	320	420	520	
150	170	220	240	310	350	400	450	550	660	720	730	740	750	
220	220	240	280	320	380	430	490	680	690	700	810	820		
330	260	320	360	420	480	540	680	800	800	970	110			
470	380	400	460	540	620	750	880	1000	1080	1220	430			
560	440	500	580	670	770	880	1050	1170	1240	1400	630			
680	500	570	660	760	870	1000	1160	1330	1430	1650				
820	560	640	740	850	970	1130	1300	1500	1690					
1,000	580	660	760	900	1040	1260	1400	1970						
2,200	1000	1060	1250	1460	1700	1900	2460	3390						
3,300	1200	1380	1620	1800	2060	2180	3270							
4,700	1650	1720	1980	2150	2280	3380	3800							
6,800	1750	2080	2250	2400	3490	4110	4500							
8,200	2150	2520	2870	3420	3780	4150								
10,000	2260	2640	2980	3710	4170	4300								
15,000	2760	3120	3890	4270										
22,000	3000	4010	4410	4500										