

# GPR Series

## General Purpose Radial Capacitors



### Features:

- General purpose radial leaded electrolytic.
- Supplied loose with straight leads.
- Wide CV value range for general purpose.
- Safety vent construction products, ECR series are guaranteed 2000 hours at 85°C.

### Specifications

Item	Performance																					
Operating Temperature Range	-40°C to +85°C																					
Rated Working Voltage Range	16 to 100V dc																					
Nominal Capacitance Range	0.47 to 4700µF																					
Capacitance Tolerance	±20% (at +20°C, 120Hz)																					
Leakage Current	$I = 0.01CV + 3\mu A$ maximum, Whichever is greater after 3 minutes. I : Leakage current (µA) C : Rated Capacitance (µF) V : Working Voltage (V)																					
Dissipation Factor ( $\tan\delta$ at 120Hz\+20°C)	<table border="1"> <thead> <tr> <th>Working Voltage</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tanδ maximum</td> <td>0.17</td> <td>0.15</td> <td>0.12</td> <td>0.1</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table>	Working Voltage	16	25	35	50	63	100	Tanδ maximum	0.17	0.15	0.12	0.1	0.09	0.08							
	Working Voltage	16	25	35	50	63	100															
Tanδ maximum	0.17	0.15	0.12	0.1	0.09	0.08																
Add 0.02 per 1000µF for more than 1000µF																						
Ripple Current	Correction Factor for Frequency																					
	<table border="1"> <thead> <tr> <th>Frequency (Hz)</th> <th>50/60</th> <th>120</th> <th>1K</th> <th>10K</th> </tr> </thead> <tbody> <tr> <td>Correction Factor Multiplier</td> <td>0.7</td> <td>1.0</td> <td>1.3</td> <td>1.7</td> </tr> </tbody> </table>	Frequency (Hz)	50/60	120	1K	10K	Correction Factor Multiplier	0.7	1.0	1.3	1.7											
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Characteristics at Low Temperature (stability at 120Hz)	<table border="1"> <thead> <tr> <th>Working Voltage</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>-25°C/+20°C</td> <td colspan="6">2</td> </tr> <tr> <td>-40°C/+20°C</td> <td colspan="2">4</td> <td colspan="4">3</td> </tr> </tbody> </table>	Working Voltage	16	25	35	50	63	100	-25°C/+20°C	2						-40°C/+20°C	4		3			
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	-25°C/+20°C	2																				
-40°C/+20°C	4		3																			
For Capacitance value >1000µF, Add 0.5 per another 1000µF for -25°C/+25°C Add 1.0 per another 1000µF for -40°C/+20°C																						

# GPR Series

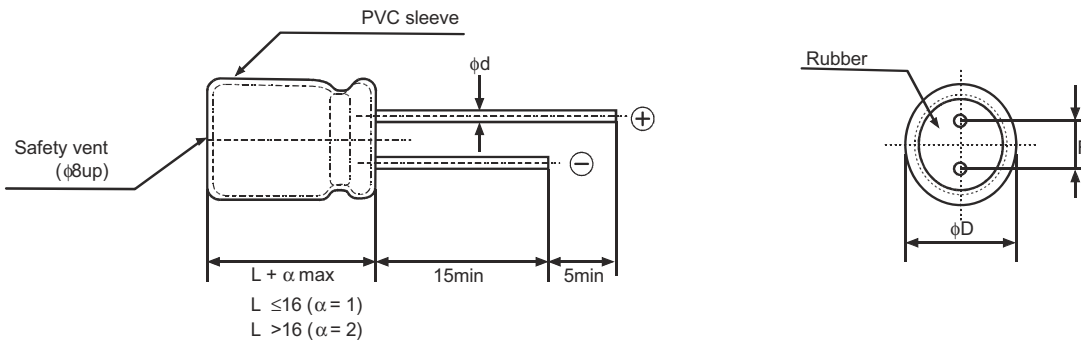
## General Purpose Radial Capacitors



### Specifications

Item	Performance	
High Temperature Loading	After 2000 hours 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
Shelf Life	After storage for 500 hours at +85°C with no voltage applied. Post test requirements at +20°C. Same limits for high temperature loading	

### Diagram of Dimensions



<b>Dφ (+0.5Max)</b>	5.0	6.0	6.3	8.0	10.0	13.0	16.0
<b>F (± 0.5)</b>	2.0	2.5	2.5	3.5	5.0	5.0	7.5
<b>dφ (± 0.02)</b>	0.5	0.5	0.5	0.6	0.6	0.6	0.8

Dimensions : Millimetres

### Case Size Table

φDiameter x Height

WV(SV) μF	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)
0.47	-	-	-	5 x 11	-	-
01	-	-	-	-	-	5 x 11
10	5 x 11	-	-	5 x 11	-	6.3 x 11
22		-	-	-	6.3 x 11	-
33		-	-	-	-	-
47		-	-	6.3 x 12	6 x 12	-
100	6.3 x 12	6.3 x 12	8 x 12	-	-	13 x 21
220	6 x 12	-	-	10 x 17	10 x 21	16 x 26
330	8 x 12	-	10 x 16	-	-	-
470		10 x 17	10 x 21	-	-	-
1000	10 x 17	10 x 21	13 x 22	-	16 x 32	-

Dimensions : Millimetres

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## General Purpose Radial Capacitors



### Permissible Ripple Current

Maximum ripple current:  $\mu\text{A}$  (rms) at 85°C, 120Hz

$\mu\text{F}$ \diagdown WV(SV)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)
0.47	-	-	-	8	-	-
01	-	-	-	-	-	15
10	39	-	-	39	-	61
22	50	-	-	-	85	-
33	58	-	75	-	-	-
47	78	-	102	112	-	190
100	123	142	140	-	-	320
220	232	-	-	395	460	665
330	310	-	435	-	-	-
470	390	460	560	-	-	-
1000	690	850	875	-	1435	-

### Part Numbers

Capacitance	Voltage rating	Dimensions	Partnumber
10	16	5 x 11	MCGPR16V106M5X11
22			MCGPR16V226M5X11
47			MCGPR16V476M5X11
100		6.3 x 12	MCGPR16V107M6.3X11
220		6 x 12	MCGPR16V227M6.3X11
330		8 x 12	MCGPR16V337M8X11
470			MCGPR16V477M8X11
1000		10 x 17	MCGPR16V108M10X16
2200		13 x 21	MCGPR16V228M13X21
4700		16 x 26	MCGPR16V478M16X26
10	25	5 x 11	MCGPR25V106M5X11
22			MCGPR25V226M5X11
47			MCGPR25V476M5X11
100		6.3 x 12	MCGPR25V107M6.3X11
220		8 x 12	MCGPR25V227M8X11
470		10 x 17	MCGPR25V477M10X16
1000		10 x 21	MCGPR25V108M10X21

Dimensions : Millimetres

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### Part Numbers

Capacitance	Voltage rating	Dimensions	Partnumber	
4.7	35	5 x 11	MCGPR35V475M5X11	
10			MCGPR35V106M5X11	
22			MCGPR35V226M5X11	
33		6.3 x 12	MCGPR35V336M5X11	
47		6.3 x 12	MCGPR35V476M6.3X11	
100		8 x 12	MCGPR35V107M8X11	
220		10 x 13	MCGPR35V227M10X13	
330		10 x 16	MCGPR35V337M10X16	
470		10 x 21	MCGPR35V477M10X21	
1000		13 x 22	MCGPR35V108M13X21	
2200		16 x 32	MCGPR35V228M16X32	
0.47		50	5 x 11	MCGPR50V474M5X11
1	MCGPR50V105M5X11			
2.2	MCGPR50V225M5X11			
4.7	MCGPR50V475M5X11			
10	MCGPR50V106M5X11			
22	MCGPR50V226M5X11			
47	6 x 12		MCGPR50V476M6.3X11	
100	8 x 11		MCGPR50V107M8X11	
220	10 x 17		MCGPR50V227M10X16	
470	13 x 21		MCGPR50V477M13X21	
1000	16 x 26		MCGPR50V108M16X26	
1	63		5 x 11	MCGPR63V105M5X11
2.2		MCGPR63V225M5X11		
4.7		MCGPR63V475M5X11		
10		MCGPR63V106M5X11		
22		6.3 x 11	MCGPR63V226M6.3X11	
47		8 x 11	MCGPR63V476M8X11	
100		10 x 13	MCGPR63V107M10X13	
220		10 x 21	MCGPR63V227M10X21	
470		13 x 26	MCGPR63V477M13X26	
1000		16 x 32	MCGPR63V108M16X32	
1		100	5 x 11	MCGPR100V105M5X11
10			6.3 x 11	MCGPR100V106M6.3X11
22	8 x 11		MCGPR100V226M8X11	
47	10 x 16		MCGPR100V476M10X16	
100	13 x 21		MCGPR100V107M13X21	
220	16 x 26		MCGPR100V227M16X26	
470	16 x 32		MCGPR100V477M16X32	

Dimensions : Millimetres

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## General Purpose Radial Capacitors



### Notes:

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