GPR Series
General Purpose Radial Capacitors

multicomp PRO

RoHS Compliant

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

<table>
<tr><th>Item</th><th>Performance</th></tr>
<tr><td>Operating Temperature Range</td><td>-40°C to +85°C</td></tr>
<tr><td>Rated Working Voltage Range</td><td>16 to 100V dc</td></tr>
<tr><td>Nominal Capacitance Range</td><td>0.47µF to 4700µF</td></tr>
<tr><td>Capacitance Tolerance</td><td>± 20% (at +20°C ,120Hz)</td></tr>
<tr><td>Leakage Current</td><td>I=0.01CV +3µA maximum, Whichever is greater after 3 minutes.
I: Leakage Current (µA)
C: Rated Capacitance (µF)
V: Working Voltage (V)</td></tr>
<tr><td>Dissipation Factor
(tan δ) (120Hz\+20°C)</td><td>
<table>
<tr><td>Working Voltage</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr>
<tr><td>tan δ max.</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>
</table>
Add 0.02 per 1,000µF for more than 1,000µF</td></tr>
<tr><td>Ripple Current</td><td>Refer to standard products table (120Hz, +85°C)
Correction factor for frequency
<table>
<tr><td>Frequency (Hz)</td><td>50/60</td><td>120</td><td>1K</td><td>10K</td></tr>
<tr><td>Correction factor(Multiplier)</td><td>0.7</td><td>1</td><td>1.3</td><td>1.7</td></tr>
</table></td></tr>
<tr><td>Characteristics at low temperature (stability at 120 Hz)</td><td>
<table>
<tr><td>Working Voltage</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr>
<tr><td>-25°C/+20°C</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr>
<tr><td>-40°C/+20°C</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td></tr>
</table>
For capacitance value >1,000 µF, Add 0.5 per another 1,000 µF for -25°C/+25°C. Add 1 per another 1,000µF for -40°C/+20°C</td></tr>
<tr><td>High Temperature Loading</td><td>After 2,000 hrs. application of DC rated working voltage at +85°C,
The capacitor shall meet the following limits: Post test requirements at +20°C
<table>
<tr><td>Leakage current</td><td>≤ the initial specified value</td></tr>
<tr><td>Capacitance change</td><td>≤ ±20% of initial measured value</td></tr>
<tr><td>Dissipation Factor(tan δ)</td><td>≤ 150% of initial specified value</td></tr>
</table></td></tr>
<tr><td>Shelf Life</td><td>After storage for 500hrs. at +85ºc with no voltage applied.
Post test requirements at +20°C same limits as high temperature loading.</td></tr>
</table>

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Case Size Table

W.V.(SV)	16	25	35	50	63	100
µF	(20)	(32)	(44)	(63)	(79)	(125)
0.47	-	-	-	5 × 11	-	-
1	-	-	-	-	-	5 × 11
10	5 × 11	-	-	5 × 11	-	6.3 × 11
22		-	-	-	6.3 × 11	-
33		-	6.3 × 12	-	-	-
47		-		6 × 12	-	10 × 16
100	6.3 × 12	6.3 × 12	8 × 12	-	-	13 × 21
220	6 × 12	-	-	10 × 17	10 × 21	16 × 26
330	8 × 12	-	10 × 16	-	-	-
470		10 × 17	10 × 21	-	-	-
1000	10 × 17	10 × 21	13 × 22	-	16 × 32	-

Permissible Ripple Current

W.V. (SV)	16	25	35	50	63	100
µF	(20)	(32)	(44)	(63)	(79)	(125)
0.47	-	-	-	8	-	-
1	-	-	-	-	-	15
10	39	-	-	39	-	61
22	50	-	-	-	85	-
33	58	-	75	-	-	-
4 7	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	-

Max. ripple current: mA (rms) **(at 85°C. 120HZ)**

Dimensions : Millimetres

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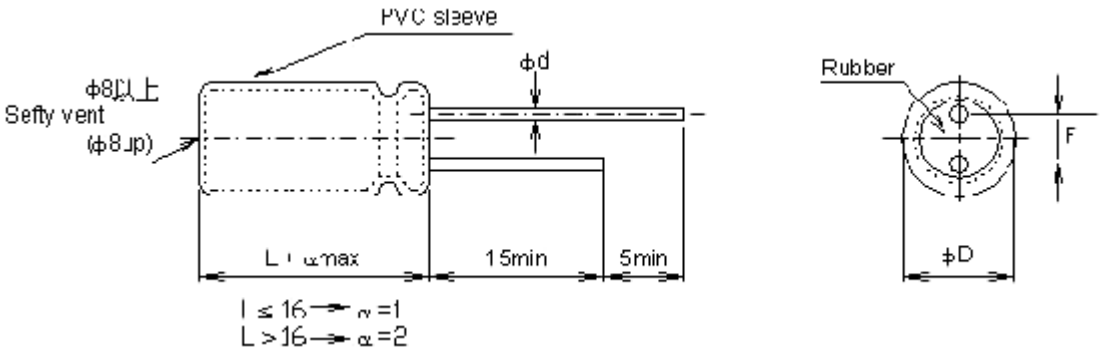
Diagram of Dimensions



DØ (+0.5Max.)	5	6	6.3	8	10	13	16
F (±0.5)	2	2.5	2.5	3.5	5	5	7.5
dØ (±0.02)	0.5	0.5	0.5	0.6	0.6	0.6	0.8

Dimensions : Millimetres

Part Number Table

Description	Part Number
Electrolytic Capacitor, 100µF, 100V, MCGPR Series, ±20%, Radial Leaded, 13mm	MCGPR100V107M13X21-RH
Electrolytic Capacitor, 100µF, 25V, MCGPR Series, ±20%, Radial Leaded, 6.3mm	MCGPR25V107M6.3X11-RH
Electrolytic Capacitor, 4.7µF, 50V, MCGPR Series, ±20%, Radial Leaded, 5mm	MCGPR50V475M5X11-RH
Electrolytic Capacitor, 10µF, 63V, MCGPR Series, ±20%, Radial Leaded, 5mm	MCGPR63V106M5X11-RH