

# GPP Series



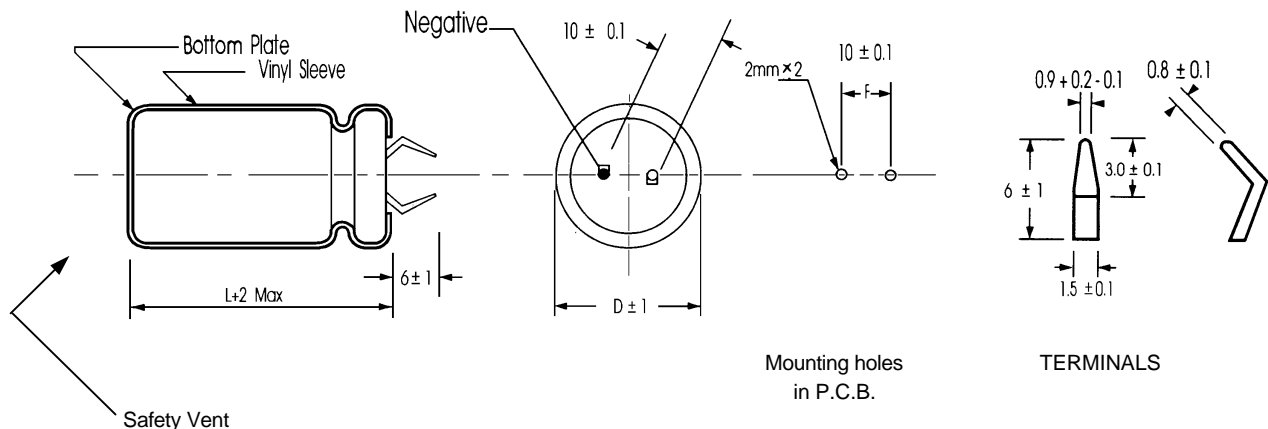
### Features

- \* Small low profile
- \* 10mm terminal spacing for direct PCB mounting
- \* Aluminium case with explosion proof vent
- \* 2000 Hour lifetime

Item	Performance Characteristics						
Operating Temperature Range	-40 to +85 deg C	-25 to +85 deg C					
Working Voltage Range	10 to 100 Volts D.C.	160 to 450 Volts D.C.					
Nominal Capacitance Range	470 to 68000 uF	47 to 2700 uF					
Capacitance Tolerance	+/- 20 % ( 120 Hz), 20 deg C						
Leakage Current (+20deg C)	I <=0.02 CV after 5 Minutes						
Dissipation Factor % (120 Hz, +20 deg C)	Less than the value below:						
	WVDC	10~16	25~35	50~63	80~100	160~250	350~450
	uF						
	47~390					15	20
	470~3900	25	20	20	20	15	20
	4700~8200	35	30	30	25		
	10000~22000	40	35	30			
27000~47000	45	40	35				
56000~68000	50	45					
Stability at Low Temperature	Impedance Ratio at 120 Hz -25 to +20 deg C : 3 max -40 to +20 deg C : 12 max						
Load Life	<u>Test conditions</u> Duration time: 2000 Hrs Ambient temperature: +85 deg C Applied voltage: Rated working voltage Ripple Current: Maximum rated ripple current. <u>After testing--Measure at 20 deg C.</u> Capacitance change: <= +/- 20% of initial measured value Dissipation factor: <= 200% of initial specified value Leakage current: <= The initial specified value						
Shelf Life	<u>Test Conditions</u> Duration time: 500 Hrs Ambient temperature: +85 deg C Applied voltage: None <u>After testing--Measure at 20 deg C.</u> Same limits as for load life. Pre-treatment: The measurements shall be conducted after application of the Working D.C. voltage for 30 minutes.						
Marking	White print on black sleeve						

### Physical Dimensions and Mounting Details

The capacitors can also be supplied with an optional 4mm (+/-1mm) long terminal.



Eurocap International Limited.

Tel. +44 (0)1992 625407.

Fax +44 (0)1992 625420.

E-Mail: eurocap@dial.pipex.com

Website: www.eurocap-int.com/eurocap

# GPP Series



Ir (A) specified at 85°C and 120Hz  
 Impedence (Z) specified at 20°C and 120Hz

**GPP Standard Products Table 10 to 50 Volt**

uF	10 V		16 V		25 V		35 V		50 V	
	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)
1500									22 x 26	1.44
2200							22 x 26	2.18	22 x 26	2.04
2700									22 x 31	2.30
3300							22 x 26	2.46	22 x 31	2.64
									25 x 26	2.64
3900							22 x 31	2.64		
4700	22 x 21	2.40	22 x 21	2.40	22 x 26	2.64	22 x 31	2.68	22 x 36	2.88
							25 x 26	2.68	25 x 31	2.88
									30 x 25	2.88
5600					22 x 31	2.78			22 x 41	3.06
									25 x 36	3.06
									30 x 31	3.06
6800	22 x 26	2.84	22 x 26	2.84	22 x 31	2.93	22 x 36	3.06	22 x 51	3.24
					25 x 26	2.93	25 x 31	3.06	25 x 41	3.24
									30 x 31	3.24
8200	22 x 26	2.90	22 x 26	2.90	22 x 31	3.05			25 x 46	3.48
					25 x 26	3.05			30 x 36	3.48
10000	22 x 31	3.06	22 x 31	3.06	22 x 36	3.43	22 x 46	3.60	25 x 51	3.96
	25 x 26	3.06	25 x 26	3.06	25 x 31	3.43	25 x 41	3.60	30 x 41	3.96
					30 x 26	3.43	30 x 31	3.60	35 x 32	3.96
12000	22 x 31	3.43	22 x 31	3.43	22 x 41	3.84	25 x 46	4.08	30 x 46	4.10
	25 x 26	3.43	25 x 26	3.43	25 x 36	3.84	30 x 36	4.08	35 x 37	4.10
					30 x 31	3.84	35 x 32	4.08		
15000	22 x 36	3.94	22 x 36	3.94	22 x 51	4.39	25 x 51	3.92	30 x 51	4.70
	25 x 31	3.94	25 x 31	3.94	25 x 41	4.39	30 x 41	3.92	35 x 42	4.70
					30 x 31	4.39	35 x 32	3.92		
18000	22 x 41	4.34	22 x 41	4.34	25 x 46	4.80	30 x 46	4.70	35 x 47	5.31
	25 x 31	4.34	25 x 36	4.34	30 x 36	4.80	35 x 37	4.70		
22000	22 x 46	4.80	22 x 46	4.80	25 x 51	5.40	30 x 51	5.45	35 x 52	5.85
	25 x 36	4.80	25 x 36	4.80	30 x 41	5.40	35 x 42	5.45		
	30 x 31	4.80	30 x 31	4.80						
27000	25 x 46	7.57	25 x 46	7.57	30 x 46	5.97	35 x 47	5.78		
	30 x 36	7.57	30 x 36	7.57	35 x 36	5.97				
33000	25 x 51	8.20	25 x 51	8.20	30 x 51	6.24	35 x 52	6.36		
	30 x 41	8.20	30 x 41	8.20	35 x 42	6.24				
	35 x 32	8.20	35 x 32	8.20						
39000	30 x 46	8.33	30 x 46	8.33	35 x 47	7.10			40 x 60	8.50
	35 x 36	8.33	35 x 36	8.33						
47000	30 x 51	8.96	30 x 51	8.96	35 x 52	7.60				
	35 x 42	8.96	35 x 42	8.96						
56000	35 x 46	10.50	35 x 46	10.50						
68000	35 x 52	10.80	35 x 52	10.80						

# GPP Series



Ir (A) specified at 85°C and 120Hz  
 Impedence (Z) specified at 20°C and 120Hz

**GPP Standard Products Table 63 to 160 Volt**

uF	63 V		80 V		100 V		160 V	
	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)
180							22 x 21	1.12
270							22 x 26	1.35
330							22 x 26	1.44
390							22 x 31	1.66
							25 x 26	1.66
470					22 x 21	1.34	22 x 31	1.76
							25 x 26	1.76
560							22 x 36	2.03
							25 x 31	2.03
							30 x 26	2.03
680			22 x 26	1.34	22 x 26	1.53	22 x 41	2.36
							25 x 36	2.36
							30 x 26	2.36
820							22 x 46	2.72
							25 x 41	2.72
							30 x 36	2.72
							35 x 25	2.30
1000	22 x 26	1.58	22 x 31	1.62	22 x 31	1.62	25 x 46	3.13
			25 x 26	1.62	25 x 26	1.62	30 x 36	3.13
							35 x 32	3.13
1200					22 x 36	1.74	25 x 51	3.44
					25 x 31	1.74	30 x 36	3.44
							35 x 32	3.44
1500	22 x 26	1.68	22 x 31	1.76	22 x 41	1.85	30 x 46	3.96
			25 x 26	1.76	25 x 36	1.85	35 x 37	3.96
					30 x 31	1.85		
1800	30 x 20	1.90	22 x 36	1.82	22 x 46	2.20	30 x 51	4.47
			25 x 31	1.82	25 x 41	2.20	35 x 42	4.47
					30 x 31	2.20		
2200	22 x 31	2.52	22 x 41	2.52	22 x 51	2.64	35 x 47	4.65
	25 x 26	2.52	25 x 31	2.52	25 x 41	2.64		
			30 x 26	2.52	30 x 31	2.64		
2700	22 x 36	2.82	22 x 46	2.76	25 x 46	3.16	35 x 52	4.76
	25 x 31	2.82	25 x 36	2.76	30 x 36	3.16		
			30 x 31	2.76				
3300	22 x 41	3.12	22 x 51	3.42	25 x 51	3.42		
	25 x 31	3.12	25 x 41	3.42	30 x 41	3.42		
	30 x 26	3.12	30 x 31	3.24				
3900	22 x 46	3.21	25 x 46	3.40	30 x 46	3.58		
	25 x 36	3.21	30 x 36	3.40	35 x 37	3.58		
	30 x 31	3.21						
4700	22 x 51	3.28	25 x 51	3.60	30 x 51	3.72		
	25 x 41	3.28	30 x 41	3.60	35 x 42	3.72		
	35 x 27	3.28						
5600	25 x 46	3.86	30 x 46	3.78	35 x 47	3.72		
	30 x 36	3.86	35 x 37	3.78				
	35 x 32	3.86						
6800	25 x 51	4.32	30 x 51	4.60	35 x 52	4.10		
	30 x 41	4.32	35 x 42	4.60				
	35 x 32	4.32						
8200	30 x 46	4.44	35 x 52	4.92				
	35 x 37	4.44						
10000	35 x 42	4.77	40 x 63	5.04				
12000	35 x 52	5.04						

# GPP Series



Ir (A) specified at 85°C and 120Hz  
 Impedence (Z) specified at 20°C and 120Hz

**GPP Standard Products Table 200 to 450 Volt**

uF	200 V		250 V		350 V		400 V		450 V	
	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)	Dia x L	Ir(A)
47							22 x 21	0.42	22 x 26	0.36
68							22 x 26	0.51		
82							22 x 26	0.83	22 x 31	0.89
									25 x 26	0.89
100					22 x 26	0.76	22 x 31	1.03	22 x 36	1.03
							25 x 26	1.03	25 x 31	1.03
120			22 x 21	0.85	22 x 31	0.89	22 x 31	1.07	22 x 41	1.19
					25 x 26	0.89	25 x 26	1.07	30 x 35	1.19
150	22 x 21	0.96	22 x 26	0.98	22 x 36	0.90	22 x 41	1.26	22 x 51	1.39
					25 x 31	0.99	25 x 31	1.26	25 x 41	1.39
					30 x 26	0.99	30 x 26	1.26	30 x 31	1.39
180			22 x 26	1.12	22 x 41	1.15	22 x 46	1.46	22 x 51	1.52
					25 x 36	1.15	25 x 36	1.46	35 x 27	1.52
					30 x 26	1.15	30 x 31	1.46		
220	22 x 26	1.36	22 x 31	1.36	22 x 46	1.34	22 x 51	1.75	25 x 51	1.76
			25 x 26	1.36	25 x 41	1.34	25 x 41	1.75	35 x 37	1.76
					30 x 31	1.34	30 x 36	1.75		
					35 x 27	1.34	30 x 31	1.70		
270	22 x 26	1.50	22 x 31	1.60	25 x 46	1.63	25 x 46	1.96		
			25 x 26	1.60	30 x 36	1.63	30 x 36	1.96		
					35 x 27	1.63	35 x 32	1.96		
330	22 x 31	1.89	22 x 36	1.87	25 x 51	1.80	30 x 41	2.26	30 x 46	2.29
	25 x 26	1.89	25 x 31	1.87	30 x 41	1.80	35 x 37	2.26	35 x 37	2.29
			30 x 26	1.87	35 x 32	1.80				
390	22 x 31	1.92	22 x 41	2.04	30 x 46	2.02	30 x 46	2.50	35 x 42	2.54
	25 x 26	1.92	25 x 36	2.04	35 x 37	2.02	35 x 42	2.50	40 x 37	2.54
			30 x 26	2.04						
470	22 x 36	2.23	22 x 46	2.38	30 x 51	2.22	35 x 47	2.80	35 x 47	2.89
	25 x 31	2.23	25 x 41	2.38	35 x 42	2.22	40 x 37	2.80	40 x 42	2.89
	30 x 26	2.23	30 x 31	2.38			30 x 52	2.40		
560	22 x 41	2.57	25 x 46	2.81	35 x 47	2.59	35 x 52	3.16	40 x 52	3.26
	25 x 36	2.57	30 x 36	2.81						
	30 x 26	2.57	35 x 27	2.81						
680	22 x 46	2.98	25 x 51	3.11	35 x 52	2.90	40 x 52	3.59		
	25 x 36	2.98	30 x 41	3.11						
	30 x 31	2.98	35 x 32	3.11						
820	25 x 46	3.26	30 x 46	3.55						
	30 x 36	3.26	35 x 37	3.55						
	35 x 27	3.26								
1000	25 x 51	3.92	30 x 51	4.00						
	30 x 41	3.92	35 x 42	4.00						
	35 x 32	3.92								
1200	30 x 46	4.25	35 x 47	4.55						
	35 x 37	4.25								
		4.25								
1500	30 x 51	4.99	35 x 52	5.34						
	35 x 42	4.99								
		4.99								
1800	35 x 47	5.84	40 x 52	6.11						
2200	35 x 52	6.07								

# GPP Series



## GPP Application Data

### Ripple current multipliers for frequency

Frequency	50 / 60	120	400	1K	10K	50K	100K
Capacitance (uF)							
<uF<= 10	0.80	1.00	1.30	1.45	1.65	1.70	1.70
10 <uF<= 100	0.80	1.00	1.23	1.36	1.48	1.53	1.53
100 <uF<= 1000	0.80	1.00	1.16	1.25	1.35	1.38	1.38
1000 <uF<=	0.80	1.00	1.11	1.17	1.25	1.28	1.28

### Ripple current multipliers for temperature

Temperature (deg. C.)	45	60	70	85
Factor	1.8	1.5	1.3	1

### Load life tests

