

QBP series

Bi-polar RoHS compliant

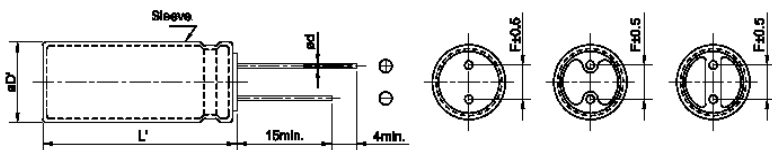


- 85°C 2,000Hrs assured.
- Bi-polar
- For Digital Household Appliances.
- RoHS compliant
- Halogen-free capacitors are also available.

■ Specifications

Item	Characteristics																						
Rated Voltage Range	6.3 ~ 100Vdc	160 ~ 250Vdc																					
Operating Temperature Range	-40 ~ +85°C	-25 ~ +85°C																					
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)																						
Leakage Current	I=0.03CV(μA) or 3μA, whichever is greater Where, C:Nominal capacitance(μF), V:Rated voltage(VDC) (at 20°C, 5 minutes)																						
Dissipation Factor (Tanδ)	<table border="1"> <tr> <td>Rated Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16~25</td> <td>35</td> <td>50</td> <td>63~100</td> <td>160</td> <td>200~250</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.25</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.15</td> <td>0.20</td> </tr> </table> When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. (at 20°C, 120Hz)		Rated Voltage(VDC)	6.3	10	16~25	35	50	63~100	160	200~250	Tanδ(Max.)	0.25	0.24	0.20	0.16	0.14	0.12	0.15	0.20			
Rated Voltage(VDC)	6.3	10	16~25	35	50	63~100	160	200~250															
Tanδ(Max.)	0.25	0.24	0.20	0.16	0.14	0.12	0.15	0.20															
Temperature characteristics (Max. impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25~100</td> <td>160</td> <td>160~250</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>-</td> <td>-</td> </tr> </table> (at ,120Hz)		Rated Voltage(VDC)	6.3	10	16	25~100	160	160~250	Z(-25°C)/Z(20°C)	4	3	2	2	4	6	Z(-40°C)/Z(20°C)	10	8	6	4	-	-
Rated Voltage(VDC)	6.3	10	16	25~100	160	160~250																	
Z(-25°C)/Z(20°C)	4	3	2	2	4	6																	
Z(-40°C)/Z(20°C)	10	8	6	4	-	-																	
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 85°C. During this test, the rated voltage shall be reversed on the capacitor every 250 hours. Capacitance change ≤ ±20% of the initial value (where, ±25% for ≤ 16 VDC) Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value																						
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. (Refer to JIS C 5101-4.4.1) Capacitance change ≤ ±20% of the initial value (where, ±25% for ≤ 16 VDC) Tanδ ≤ 200% of the initial specified value Leakage current ≤ 200% of the initial specified value																						

■ Dimension

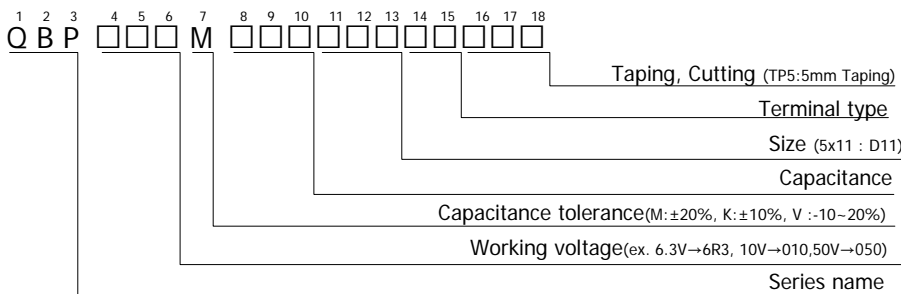


Unit (mm)

ØD	5	6.3	8	10	12.5	16	18	22
Ød	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0
ØD'	ØD+0.5 max.							
L'	L+1.5 max.				L+2.0 max.			

- Printed black color letter on PET/PVC sky blue sleeve

■ Code numbering system



Ø5	D
Ø6.3	E
Ø8	F
Ø10	G
Ø12.5	X
Ø16	J
Ø18	K
Ø22	M

QBP series

■ Standard Rating

VV (Vdc)	Cap (uF)	Size ØxL (mm)	Tanδ	Ripple Current (mA _{RMS} /85°C, 120Hz)	Code No
6.3	100	5 x 11	0.25	127	QBP6R3□100D11CS□□□
	220	6.3 x 11	0.25	215	QBP6R3□221E11CS□□□
	330	8 x 11.5	0.25	301	QBP6R3□331F12CS□□□
	470	10 x 12.5	0.25	424	QBP6R3□471G13CS□□□
	1,000	10 x 20	0.25	739	QBP6R3□102G20CS□□□
	2,200	12.5 x 25	0.25	1,304	QBP6R3□222X25CS□□□
	3,300	16 x 20	0.25	1,597	QBP6R3□332J20CS□□□
	4,700	16 x 31.5	0.25	2,241	QBP6R3□472J32CS□□□
6,800	18 x 31.5	0.25	2,782	QBP6R3□682K32CS□□□	
10	47	5 x 11	0.24	87	QBP010□470D11CS□□□
	100	6.3 x 11	0.24	145	QBP010□100E11CS□□□
	220	8 x 11.5	0.24	246	QBP010□221F12CS□□□
	330	10 x 12.5	0.24	356	QBP010□331G13CS□□□
	470	10 x 16	0.24	468	QBP010□471G16CS□□□
	1,000	12.5 x 20	0.24	799	QBP010□102X20CS□□□
	2,200	16 x 20	0.24	1,288	QBP010□222J20CS□□□
	3,300	16 x 31.5	0.24	1,878	QBP010□332J32CS□□□
4,700	18 x 31.5	0.24	2,313	QBP010□472K32CS□□□	
6,800	18 x 40	0.24	2,919	QBP010□682K40CS□□□	
16	47	5 x 11	0.20	90	QBP016□470D11CS□□□
	100	6.3 x 11	0.20	149	QBP016□101E11CS□□□
	220	10 x 12.5	0.20	298	QBP016□221G13CS□□□
	330	10 x 16	0.20	403	QBP016□331G16CS□□□
	470	10 x 20	0.20	520	QBP016□471G20CS□□□
	1,000	12.5 x 25	0.20	891	QBP016□102X25CS□□□
	2,200	16 x 31.5	0.20	1,573	QBP016□222J32CS□□□
	3,300	18 x 35.5	0.20	2,054	QBP016□332K36CS□□□
25	22	5 x 11	0.20	67	QBP025□220D11CS□□□
	33	6.3 x 11	0.20	91	QBP025□330E11CS□□□
	47	6.3 x 11	0.20	108	QBP025□470E11CS□□□
	100	8 x 11.5	0.20	181	QBP025□101F12CS□□□
	220	10 x 16	0.20	348	QBP025□221G16CS□□□
	330	10 x 20	0.20	463	QBP025□331G20CS□□□
	470	12.5 x 20	0.20	612	QBP025□471X20CS□□□
	1,000	16 x 20	0.20	971	QBP025□102J20CS□□□
2,200	18 x 31.5	0.20	1,716	QBP025□222K32CS□□□	
3,300	18 x 40	0.20	2,143	QBP025□332K40CS□□□	
35	10	5 x 11	0.16	51	QBP035□100D11CS□□□
	22	6.3 x 11	0.16	72	QBP035□220E11CS□□□
	33	6.3 x 11	0.16	105	QBP035□330E11CS□□□
	47	8 x 11.5	0.16	143	QBP035□470F12CS□□□
	100	10 x 12.5	0.16	246	QBP035□101G13CS□□□
	220	10 x 20	0.16	436	QBP035□221G20CS□□□
	330	12.5 x 20	0.16	548	QBP035□331X20CS□□□
	470	12.5 x 25	0.16	711	QBP035□471X25CS□□□
1,000	16 x 31.5	0.16	1,235	QBP035□102X20CS□□□	
2,200	18 x 40	0.16	1,856	QBP035□222K40CS□□□	
50	10	5 x 11	0.14	53	QBP050□100D11CS□□□
	22	6.3 x 11	0.14	90	QBP050□220E11CS□□□
	33	8 x 11.5	0.14	125	QBP050□330F12CS□□□
	47	10 x 12.5	0.14	176	QBP050□470G13CS□□□
	100	10 x 16	0.14	287	QBP050□101G16CS□□□
	220	12.5 x 20	0.14	505	QBP050□221X20CS□□□
	330	16 x 20	0.14	673	QBP050□331J20CS□□□
	470	16 x 25	0.14	886	QBP050□471J25CS□□□
1,000	18 x 35.5	0.14	1,423	QBP063□102K36CS□□□	
63	4.7	5 x 11	0.12	40	QBP063□4R7D11CS□□□
	10	6.3 x 11	0.12	64	QBP063□100E11CS□□□
	22	8 x 11.5	0.12	107	QBP063□220F12CS□□□
	33	8 x 11.5	0.12	138	QBP063□330F12CS□□□
	47	10 x 12.5	0.12	185	QBP063□470G13CS□□□
	100	10 x 20	0.12	330	QBP063□101G20CS□□□
220	12.5 x 25	0.12	591	QBP063□221X25CS□□□	

VV (Vdc)	Cap (uF)	Size ØxL (mm)	Tanδ	Ripple Current (mA _{RMS} /85°C, 120Hz)	Code No
63	330	16 x 25	0.12	799	QBP063□331J25CS□□□
	470	16 x 31.5	0.12	1,002	QBP063□471J32CS□□□
	1,000	18 x 40	0.12	1,445	QBP063□102K40CS□□□
100	3.3	5 x 11	0.12	35	QBP100□3R3D11CS□□□
	4.7	6.3 x 11	0.12	48	QBP100□4R7E11CS□□□
	10	8 x 11.5	0.12	81	QBP100□100F12CS□□□
	22	10 x 12.5	0.12	141	QBP100□220G13CS□□□
	33	10 x 16	0.12	191	QBP100□330G16CS□□□
	47	10 x 20	0.12	246	QBP100□470G20CS□□□
	100	12.5 x 25	0.12	434	QBP100□101X25CS□□□
	220	16 x 31.5	0.12	767	QBP100□221J32CS□□□
330	18 x 35.5	0.12	943	QBP100□331K36CS□□□	
160	10	10 x 16	0.15	105	QBP160□100G11CS□□□
	22	12.5 x 20	0.15	187	QBP160□220X11CS□□□
	33	12.5 x 25	0.15	249	QBP160□330X11CS□□□
	47	16 x 25	0.15	328	QBP160□470J11CS□□□
	100	18 x 31.5	0.15	455	QBP160□101K11CS□□□
200	4.7	10 x 12.5	0.20	59	QBP200□4R7G13CS□□□
	10	10 x 20	0.20	97	QBP200□100G16CS□□□
	22	12.5 x 25	0.20	182	QBP200□220X25CS□□□
	33	16 x 20	0.20	241	QBP200□330J20CS□□□
	47	16 x 25	0.20	328	QBP200□470J25CS□□□
100	18 x 40	0.20	501	QBP200□101K40CS□□□	
250	3.3	10 x 12.5	0.20	48	QBP250□3R3G13CS□□□
	4.7	10 x 16	0.20	66	QBP250□4R7G16CS□□□
	10	12.5 x 20	0.20	108	QBP250□100X20CS□□□
	22	16 x 20	0.20	192	QBP250□220J20CS□□□
	33	16 x 25	0.20	260	QBP250□330J25CS□□□
47	18 x 31.5	0.20	327	QBP250□470K40CS□□□	