

PXB Series

• 125°C 2,000~5,000Hrs assured.

- Low impedance.
- Wide Temperature range.
- Long Life.
- Suitable to fit for automotive equipment.
- RoHS compliant.
- Halogen-free capacitors are also available.
- AEC-Q200 compliant : Please contact us for more details, test data, information.

Solvent-proof

WV ≤ 80V_{DC}

PXA

PXB

Long Life



SPECIFICATIONS

Item	Characteristics																															
Rated Voltage Range	10 ~ 100 V _{DC}	160 ~ 400 V _{DC}	450 V _{DC}																													
Operating Temperature Range	-40 ~ +125°C	-40 ~ +125°C	-25 ~ +125°C																													
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)																															
Leakage Current	I = 0.03CV (μA) or 4μA, whichever is greater.	CV ≤ 1,000	CV > 1,000																													
		I = 0.1CV + 40	I = 0.04CV + 100																													
Where, I : Max. leakage current (μA) C: Nominal capacitance (μF) V: Rated voltage(V _{DC}) (at 20°C, 1 minute)																																
Dissipation Factor(Tan δ)	<table border="1"> <tr> <td>Rated voltage(V_{DC})</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50~63</td> <td>80~100</td> <td>160~250</td> <td>350~450</td> </tr> <tr> <td>Tan δ(Max.)</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.20</td> <td>0.24</td> </tr> </table>								Rated voltage(V _{DC})	10	16	25	35	50~63	80~100	160~250	350~450	Tan δ(Max.)	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.24						
	Rated voltage(V _{DC})	10	16	25	35	50~63	80~100	160~250	350~450																							
Tan δ(Max.)	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.24																								
When the capacitance exceeds 1.000μF, 0.02 shall be added every 1.000μF increase. (at 20°C, 120Hz)																																
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td> <td>10</td> <td>16~35</td> <td>50~80</td> <td>100</td> <td>160~250</td> <td>350~400</td> <td>450</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>3</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>6</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>6</td> <td>4</td> <td>5</td> <td>6</td> <td>6</td> <td>10</td> <td>-</td> </tr> </table>								Rated Voltage(V _{DC})	10	16~35	50~80	100	160~250	350~400	450	Z(-25°C)/Z(+20°C)	3	2	3	3	3	6	6	Z(-40°C)/Z(+20°C)	6	4	5	6	6	10	-
	Rated Voltage(V _{DC})	10	16~35	50~80	100	160~250	350~400	450																								
	Z(-25°C)/Z(+20°C)	3	2	3	3	3	6	6																								
Z(-40°C)/Z(+20°C)	6	4	5	6	6	10	-																									
(at 120Hz)																																
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied at 125°C.			<table border="1"> <tr> <td>∅ D</td> <td>10~100V</td> <td>160~450V</td> </tr> <tr> <td>∅ 5~6.3</td> <td>2,000 hours</td> <td>-</td> </tr> <tr> <td>∅ 8</td> <td>3,000 hours</td> <td rowspan="2">5,000 hours</td> </tr> <tr> <td>∅ 10~</td> <td>5,000 hours</td> </tr> </table>		∅ D	10~100V	160~450V	∅ 5~6.3	2,000 hours	-	∅ 8	3,000 hours	5,000 hours	∅ 10~	5,000 hours																
	∅ D	10~100V	160~450V																													
∅ 5~6.3	2,000 hours	-																														
∅ 8	3,000 hours	5,000 hours																														
∅ 10~	5,000 hours																															
Capacitance change ≤ ±30% of the initial value (where, ±20% for ≥ WV 160V _{DC})																																
Tan δ ≤ 300% of the initial specified value (where, 200% for ≥ WV 160V _{DC})																																
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 125°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.																															
	Capacitance change ≤ ±30% of the initial value (where, ±20% for ≥ WV 160V _{DC})																															
	Leakage current ≤ The initial specified value (where, 500% for ≥ WV 160V _{DC})																															
Others	Satisfied characteristics KS C IEC 60384-4																															

DIMENSIONS OF PXB Series

Unit(mm)

Marking : GREEN SLEEVE, BLACK INK

∅D	5	6.3	8	10	12.5	16
∅d	0.5	0.5	0.6	0.6	0.6	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5
∅D'	∅D + 0.5 max.					
L'	L + 1.5 max.			L + 2.0 max.		

RATINGS OF PXB Series

V _{DC}	10			16			25			35			
	Items	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)
			(20°C, 100kHz)			(125°C, 100kHz)			(20°C, 100kHz)			(125°C, 100kHz)	
22											5 × 11	3.0	128
33							5 × 11	3.0	128		6.3 × 11	1.0	180
47					5 × 11	3.0	128	6.3 × 11	1.0	180	6.3 × 11	1.00	220
68	5 × 11	3.0	128	6.3 × 11	1.0	180	6.3 × 11	1.0	220	8 × 11.5	0.35	307	
100	5 × 11	3.0	150	6.3 × 11	1.0	220	8 × 11.5	0.35	325	8 × 11.5	0.35	325	
	6.3 × 11	1.0	180	8 × 11.5	0.35	325				10 × 12.5	0.25	480	
220	6.3 × 11	1.0	220	8 × 11.5	0.35	368	10 × 12.5	0.25	480	10 × 16	0.15	625	
	8 × 11.5	0.35	325	10 × 12.5	0.25	480							
330	10 × 12.5	0.25	480	10 × 12.5	0.25	480	10 × 16	0.15	625	10 × 20	0.11	799	
470	10 × 12.5	0.25	480	10 × 16	0.15	625	10 × 20	0.11	799	12.5 × 20	0.068	997	
1,000	10 × 20	0.11	799	12.5 × 20	0.068	997	12.5 × 25	0.058	1,121	16 × 25	0.040	1,426	
2,200	12.5 × 25	0.058	997	16 × 25	0.040	1,426	16 × 31.5	0.034	1,595				
3,300	16 × 25	0.040	1,426	16 × 31.5	0.034	1,595							
4,700	16 × 31.5	0.034	1,595										

V _{DC}	50			63			80			100			
	Items	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)	∅ D × L (mm)	Imp. (∅ max.)	Rated Ripple Current (mArms)
			(20°C, 100kHz)			(125°C, 100kHz)			(20°C, 100kHz)			(125°C, 100kHz)	
1	5 × 11	5.2	29										
1.5	5 × 11	5.2	38										
2.2	5 × 11	5.2	45										
3.3	5 × 11	5.2	55										
4.7	5 × 11	5.2	67										
6.8	5 × 11	5.2	75										
10	5 × 11	2.5	92										
	8 × 11.5	0.75	180								8 × 11.5	1.7	140
22	5 × 11	2.5	162				8 × 11.5	1.5	150	10 × 12.5	0.94	440	
	8 × 11.5	0.50	250										
33	8 × 11.5	0.50	280	8 × 11.5	1.5	150	10 × 12.5	0.80	480	10 × 12.5	0.94	440	
47	8 × 11.5	0.50	280	10 × 12.5	0.80	480	10 × 12.5	0.80	480	10 × 16	0.68	600	
100	10 × 12.5	0.25	480	10 × 16	0.58	650	10 × 20	0.39	790	12.5 × 20	0.32	870	
220	10 × 20	0.15	625	12.5 × 20	0.27	950	12.5 × 25	0.18	1,240	16 × 25	0.14	1,320	
330	12.5 × 20	0.081	990	12.5 × 25	0.18	1,240	12.5 × 30	0.16	1,390	16 × 31.5	0.12	1,400	
470	12.5 × 25	0.059	1,150	12.5 × 30	0.16	1,390	16 × 25	0.11	1,500				
1,000	16 × 31.5	0.032	1,590	16 × 31.5	0.090	1,650							

V _{DC}	160		200		250		350		400		450		
	Items	∅ D × L (mm)	Rated Ripple Current (mArms)	∅ D × L (mm)	Rated Ripple Current (mArms)	∅ D × L (mm)	Rated Ripple Current (mArms)	∅ D × L (mm)	Rated Ripple Current (mArms)	∅ D × L (mm)	Rated Ripple Current (mArms)	∅ D × L (mm)	Rated Ripple Current (mArms)
			(125°C, 120Hz)		(125°C, 120Hz)		(125°C, 120Hz)		(125°C, 120Hz)		(125°C, 120Hz)		(125°C, 120Hz)
3.3									8 × 11.5	48			
4.7				8 × 11.5	53			8 × 11.5	56	10 × 12.5	65		
6.8				8 × 15	71	8 × 11.5	70	8 × 15	75	10 × 16	86	10 × 16	80
10	8 × 11.5	80	8 × 15	86	10 × 12.5	91	10 × 16	105	10 × 20	112	10 × 20	108	
15	8 × 15	108	10 × 12.5	110	10 × 16	115	10 × 20	139	12.5 × 20	153	12.5 × 20	150	
22	10 × 12.5	135	10 × 20	159	12.5 × 20	167	12.5 × 25	204	12.5 × 25	202	16 × 25	242	
	10 × 16	151							12.5 × 30	217			
33	10 × 20	204	12.5 × 20	216	12.5 × 25	223	16 × 25	276	16 × 25	273	16 × 31.5	321	
47	12.5 × 20	242	12.5 × 25	281	16 × 25	294	16 × 31.5	355	16 × 31.5	351			
68	12.5 × 25	317	16 × 20	348	16 × 31.5	381							
100	16 × 25	424	16 × 25	452									
150	16 × 31.5	481											

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

(10 ~ 100V_{DC})

Cap. (μF)	Freq. (Hz)				
	120	1k	10k	50k	100k
1 ~ 100	0.40	0.75	0.90	0.93	1.00
220 ~ 470	0.50	0.85	0.94	0.96	1.00
1,000	0.60	0.87	0.95	0.97	1.00
2,200 ~ 3,300	0.75	0.90	0.95	0.97	1.00
4,700	0.85	0.95	0.98	0.99	1.00

(160 ~ 450V_{DC})

Cap. (μF)	Freq. (Hz)				
	120	1k	10k	50k	100k
3.3 ~ 33	1.00	1.50	1.75	1.76	1.80
47 ~ 150	1.00	1.30	1.40	1.43	1.50