

## MVG(MV)-BP Series

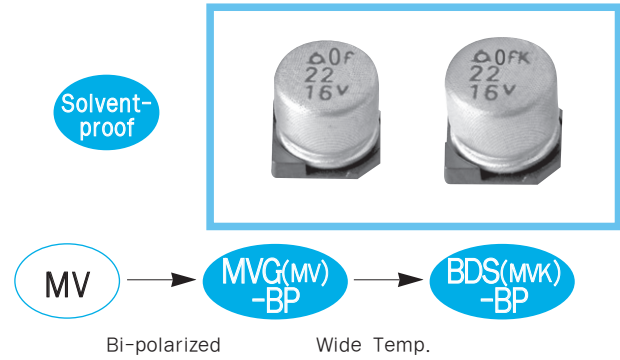
• 85°C 2,000Hrs assured.

- Vertical SMD type.
- Bi-polarized.
- For LED MT / TV.
- RoHS compliant.
- Halogen-free capacitors are also available.

## BDS(MVK)-BP Series

• 105°C 1,000Hrs assured.

- Vertical SMD type.
- Bi-polarized.
- Wide Temperature Range.
- For LED MT / TV.
- RoHS compliant.
- Halogen-free capacitors are also available.

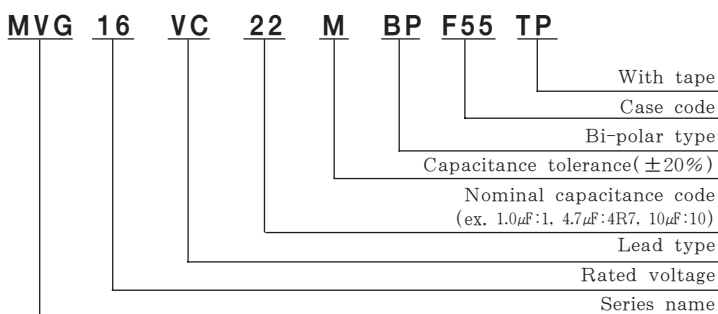


### SPECIFICATIONS

Item	Characteristics																						
Series Name	MVG(MV)-BP	BDS(MVK)-BP																					
Rated Voltage Range	4 ~ 50 V <sub>DC</sub>	6.3 ~ 50 V <sub>DC</sub>																					
Operating Temperature Range	-40 ~ +85°C	-40 ~ +105°C																					
Capacitance Tolerance	±20%(M) <span style="float: right;">(at 20°C, 120Hz)</span>																						
Leakage Current (In both directions)	I = 0.05CV(μA) or 10μA, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V <sub>DC</sub> ) (at 20°C, after 2 minutes)																						
Dissipation Factor(Tanδ)	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Rated Voltage(V<sub>DC</sub>)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35~50</th> </tr> </thead> <tbody> <tr> <td>MV-BP</td> <td>0.45</td> <td>0.32</td> <td>0.26</td> <td>0.24</td> <td>0.22</td> <td>0.20</td> </tr> <tr> <td>MVK-BP</td> <td>-</td> <td>0.35</td> <td>0.26</td> <td>0.24</td> <td>0.20</td> <td>0.18</td> </tr> </tbody> </table> <p style="text-align: right;">(at 20°C, 120Hz)</p>		Rated Voltage(V <sub>DC</sub> )	4	6.3	10	16	25	35~50	MV-BP	0.45	0.32	0.26	0.24	0.22	0.20	MVK-BP	-	0.35	0.26	0.24	0.20	0.18
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Temperature Characteristics (Max. Impedance ratio)	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Rated Voltage(V<sub>DC</sub>)</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35~50</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> </tr> </tbody> </table> <p style="text-align: right;">(at 120Hz)</p>		Rated Voltage(V <sub>DC</sub> )	4	6.3	10	16	25	35~50	Z(-25°C)/Z(20°C)	7	4	3	2	2	2	Z(-40°C)/Z(20°C)	15	10	8	6	4	3
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Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied with the following conditions with its polarization reversed every 250 hours.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Series Name</th> <th>MVG(MV)-BP</th> <th>BDS(MVK)-BP</th> </tr> </thead> <tbody> <tr> <td>Test time &amp; temperature</td> <td>2,000 hours at 85°C</td> <td>1,000 hours at 105°C</td> </tr> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> <td>≤ ±30% of the initial value</td> </tr> <tr> <td>Tanδ</td> <td>≤200% of the initial specified value</td> <td>≤300% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> <td>≤The initial specified value</td> </tr> </tbody> </table>		Series Name	MVG(MV)-BP	BDS(MVK)-BP	Test time & temperature	2,000 hours at 85°C	1,000 hours at 105°C	Capacitance change	≤ ±20% of the initial value	≤ ±30% of the initial value	Tanδ	≤200% of the initial specified value	≤300% of the initial specified value	Leakage current	≤The initial specified value	≤The initial specified value						
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Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 85°C (MVG(MV)-BP) or 105°C (BDS(MVK)-BP) 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.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Series Name</th> <th>MVG(MV)-BP</th> <th>BDS(MVK)-BP</th> </tr> </thead> <tbody> <tr> <td>Capacitance change</td> <td>≤ ±15% of the initial value</td> <td>≤ ±25% of the initial value</td> </tr> <tr> <td>Tanδ</td> <td>≤150% of the initial specified value</td> <td>≤200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> <td>≤The initial specified value</td> </tr> </tbody> </table>		Series Name	MVG(MV)-BP	BDS(MVK)-BP	Capacitance change	≤ ±15% of the initial value	≤ ±25% of the initial value	Tanδ	≤150% of the initial specified value	≤200% of the initial specified value	Leakage current	≤The initial specified value	≤The initial specified value									
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Others	Satisfied characteristics KS C IEC 60384-4																						

MVG(MV)-BP/  
BDS(MVK)-BP Series

### PART NUMBERING SYSTEM



## DIMENSIONS OF MVG(MV)-BP, BDS(MVK)-BP Series

Unit(mm)

### DIMENSIONS

### MARKING

**Recommended solder land on PC board**

■ : Solder land on PC board

Note 1 : 6.3WV is marked by 6V.

Case code	∅D	L	A	B	C	W	P	a	b	c
D55	4	5.2	4.3	4.3	5.1	0.5~0.8	1.0	1.0	2.6	1.6
E55	5	5.2	5.3	5.3	5.9	0.5~0.8	1.4	1.4	3.0	1.6
F55	6.3	5.2	6.6	6.6	7.2	0.5~0.8	1.9	1.9	3.5	1.6
F60	6.3	5.7	6.6	6.6	7.2	0.5~0.8	1.9	1.9	3.5	1.6

## RATINGS OF MVG(MV)-BP, BDS(MVK)-BP Series

### MVG(MV)-BP

μF \ V <sub>DC</sub>	4		6.3		10		16		25		35		50	
	1.0													D55
(1.5)													D55	6.5
2.2											D55	8	E55	9
3.3								D55	9				E55	11
4.7							D55	11			E55	13	F55	14
(6.8)					D55	12			E55	15	F55	17		
10			D55	13			E55	18			F55	21		
(15)	D55	14			E55	21			F55	24				
22			E55	23			F55	28						
33					F55	33								
47			F55	36										

↑ Rated Ripple Current(mArms/ 85°C, 120Hz)  
 ↑ Case code

### BDS(MVK)-BP

μF \ V <sub>DC</sub>	6.3		10		16		25		35		50	
	1.0											D55
(1.5)											D55	7.2
2.2									D55	7	E55	9.0
3.3							D55	8			E55	12
4.7					D55	10			E55	14	F60	16
(6.8)			D55	11			E55	16			F60	20
10	D55	12			E55	18			F60	23		
(15)			E55	20			F60	28				
22	E55	23			F60	32						
33			F60	35								
47	F60	39										

↑ Rated Ripple Current (mArms/105°C, 120Hz)  
 ↑ Case code

Note : → Use next higher voltage part.  
 Parenthesized capacitance is not standard part.