MVG(MV)-BP Series

• 85℃ 2,000Hrs assured.

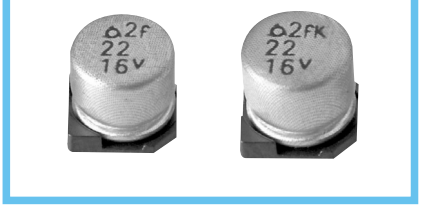
- Vertical SMD type.
- Bi-polarized.
- For LED MT / TV.
- RoHS compliant.
- Halogen-free capacitors are also available.

BDS(MVK)-BP Series

• 105℃ 1,000Hrs assured.

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

Solvent-proof



MV → MVG(MV) -BP → BDS(MVK) -BP

Bi-polarized Wide Temp.

SPECIFICATIONS

Item	Characteristics	
Series Name	MVG(MV)-BP	BDS(MVK)-BP
Rated Voltage Range	4 ~ 50 VDC	6.3 ~ 50 VDC
Operating Temperature Range	-40 ~ +85℃	-40 ~ +105℃
Capacitance Tolerance	±20%(M) (at 20℃, 120Hz)	
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(VDC) (at 20℃, after 2 minutes)	

Dissipation Factor(Tanδ)

Rated Voltage(VDC)	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

(at 20℃, 120Hz)

Temperature Characteristics (Max. Impedance ratio)

Rated Voltage(VDC)	4	6.3	10	16	25	35~50
Z(-25℃)/Z(20℃)	7	4	3	2	2	2
Z(-40℃)/Z(20℃)	15	10	8	6	4	3

(at 120Hz)

Load Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied with the following conditions with its polarization reversed every 250 hours.

Series Name	MVG(MV)-BP	BDS(MVK)-BP
Test time & temperature	2,000 hours at 85℃	1,000 hours at 105℃
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

Shelf Life

The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 85℃(**MVG(MV)-BP**) or 105℃(**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.

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

Others

Satisfied characteristics KS C IEC 60384-4

PART NUMBERING SYSTEM

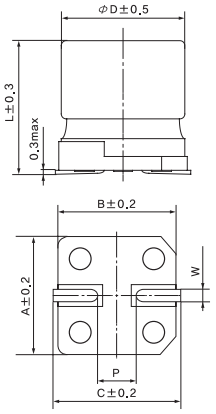
MVG 16 VC 22 M BP F55 TP

- TP: With tape
- F55: Case code
- BP: Bi-polar type
- M: Capacitance tolerance(±20%)
- 22: Nominal capacitance code (ex. 1.0μF:1, 4.7μF:4R7, 10μF:10)
- VC: Lead type
- 16: Rated voltage
- MVG: Series name

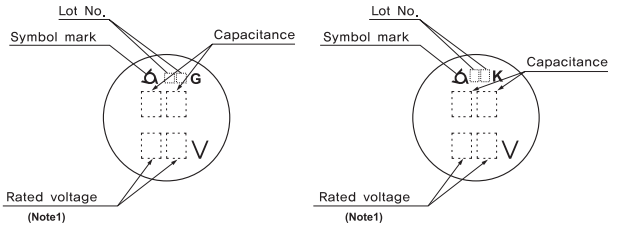
DIMENSIONS OF MVG(MV)-BP, BDS(MVK)-BP Series

Unit(mm)

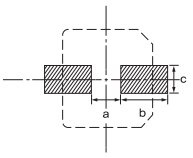
DIMENSIONS



MARKING



Recommended solder land on PC board



▨ : Solder land on PC board

Note 1 : 6.3WV is marked by 6V.

Case code	ØD	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 \ VDC	4		6.3		10		16		25		35		50	
1.0													D55	5.5
(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℃, 120Hz)
↑ Case code

BDS(MVK)-BP

μF \ VDC	6.3		10		16		25		35		50	
1.0											D55	5.3
(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 (mA rms/105℃, 120Hz)
↑ Case code

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