

### MBV series

- 85°C 3,000Hrs assured.
- Permissible Spike test
- For SMPS, Inverter
- RoHS compliant
- Halogen-free capacitors are also available.

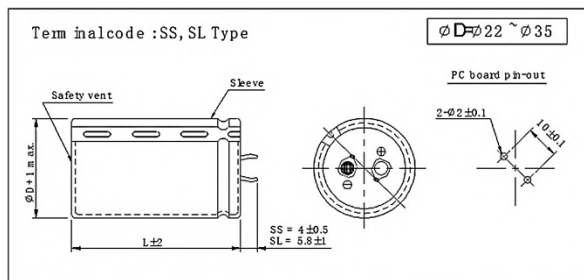
Permissible Spike test    RoHS Compliant



### Specifications

Item	Characteristics	
Rated Voltage Range	450, 500 Vdc	
Operating Temperature Range	-25 ~ +85°C	
Capacitance Tolerance	±20% (M)	(at 20°C, 120Hz)
Leakage Current	I=0.02CV or 3mA whichever is smaller Where, I:Max. Leakage current(µA), C:Nominal capacitance(µF), V:Rated voltage(Vdc) (at 20°C, 5min)	
Dissipation Factor(Tanδ)	Rated voltage (Vdc)	450, 500
	Tanδ (max.)	0.24
Temperature characteristics (Max,impedance ratio)	Rated voltage (Vdc)	450, 500
	Z(-25°C)/Z(20°C)	8
	Z(-40°C)/Z(20°C)	-
Load life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for specified life times at 85°C3,000hrs. Capacitance change ≤±20%of the initial value Tan δ ≤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 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes at least 25 hours and not more than 48 hours before the measurements. Capacitance change ≤±20% of the initial value Tanδ ≤200% of the initial specified value Leakage current ≤The initial specified value	

### Dimensions



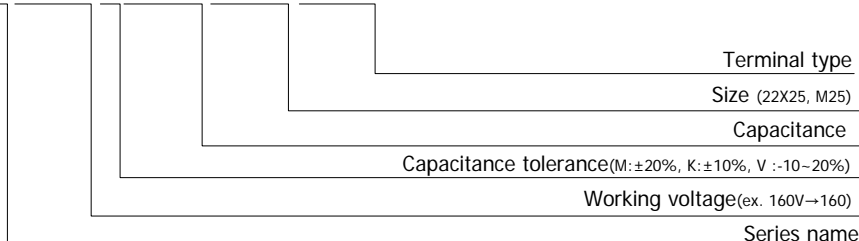
- Printed white color letter on black sleeve
- The standard design has no bottom plate

### Rated ripple current multipliers

Vdc \ Freq.(Hz)	60	120	300	1K	10K~
450, 500	0.77	1.00	1.16	1.30	1.41

### Code numbering system

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  
M B V □ □ □ M □ □ □ □ □ □ □ □ □ □



Ø22	M
Ø25	N
Ø30	O
Ø35	P

**MBV series**

**Standard Ratings** Note1) Ripple current = mA rms/85°C, 120Hz

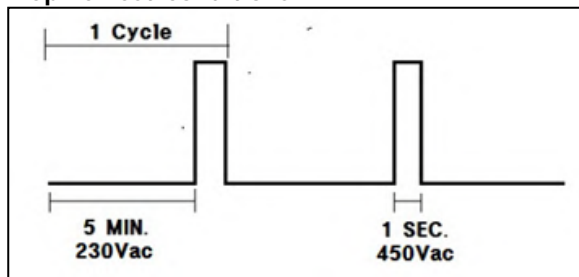
WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple <sup>1)</sup>	Code No
450	120	22 x 30	0.20	920	MBV450□121M30□□□
		25 x 25	0.20	920	MBV450□121N25□□□
	150	25 x 35	0.20	1,050	MBV450□151N35□□□
		25 x 30	0.20	1,060	MBV450□151N30□□□
	180	22 x 40	0.20	1,190	MBV450□181M40□□□
		25 x 30	0.20	1,160	MBV450□181N30□□□
		30 x 25	0.20	1,180	MBV450□181O25□□□
	220	22 x 45	0.20	1,340	MBV450□221M40□□□
		25 x 35	0.20	1,320	MBV450□221N30□□□
		30 x 30	0.20	1,370	MBV450□221O25□□□
	270	22 x 40	0.20	1,560	MBV450□271M40□□□
		30 x 35	0.20	1,610	MBV450□271O35□□□
		35 x 25	0.20	1,600	MBV450□271P25□□□
	330	30 x 40	0.20	1,910	MBV450□331O40□□□
		35 x 30	0.20	1,890	MBV450□331P30□□□
	390	30 x 45	0.20	2,100	MBV450□391O45□□□
		35 x 35	0.20	2,090	MBV450□391P35□□□
	470	35 x 40	0.20	2,410	MBV450□471P40□□□
	560	35 x 45	0.20	2,710	MBV450□561P45□□□
	680	35 x 50	0.20	2,910	MBV450□681P50□□□

WV (Vdc)	Cap (uF)	Size ØxL(mm)	Tan δ	Ripple <sup>1)</sup>	Code No
500	68	22 x 30	0.20	410	MBV500□680M30□□□
		22 x 30	0.20	520	MBV500□820M30□□□
	82	25 x 25	0.20	540	MBV500□820N25□□□
		25 x 35	0.20	700	MBV500□101N35□□□
	120	25 x 40	0.20	870	MBV500□121N40□□□
	150	25 x 45	0.20	920	MBV500□151N45□□□
		30 x 30	0.20	890	MBV500□151O30□□□
	180	25 x 50	0.20	970	MBV500□181N50□□□
		30 x 35	0.20	1,000	MBV500□181O35□□□
	220	30 x 40	0.20	1,160	MBV500□221O40□□□
	270	35 x 50	0.20	1,450	MBV500□271P50□□□
		35 x 35	0.20	1,370	MBV500□271P35□□□
	330	35 x 40	0.20	1,500	MBV500□331P40□□□
	390	35 x 45	0.20	1,720	MBV500□391P45□□□
	470	35 x 50	0.20	2,090	MBV500□471P50□□□

**Spike Test Method**

- Avoid abnormal feature's change by applying abnormal voltage to the following conditions.

**Spike Test conditions**



Applied Voltage	Times	Cycles
230Vac	5 Minutes	216 cycle
450Vac	1 seconds	