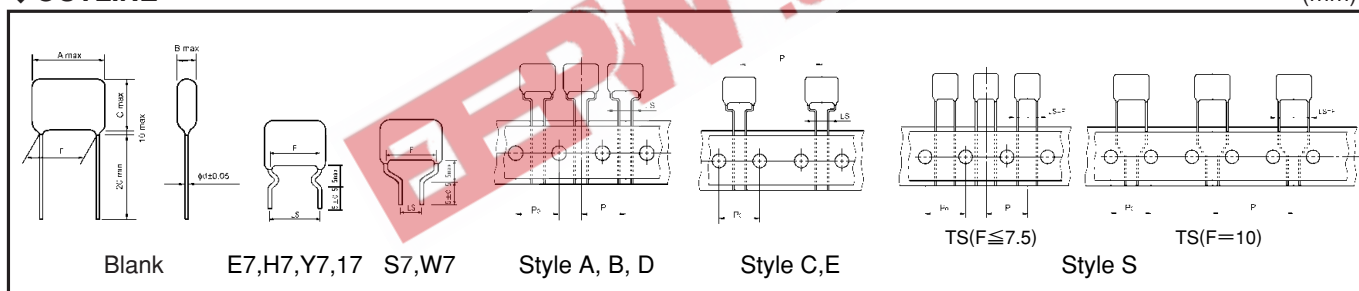


**MMB SERIES**
**◆FEATURES**

- Small and light.
- Reliability is excellent because these capacitors provide self-healing.
- Coated with flame-retardant (UL94 V-0) epoxy resin.
- RoHS compliance.


**◆SPECIFICATIONS**

Category temperature	$-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$ (Derate the voltage as shown in the Fig2 at P204 when using the capacitor beyond $85^{\circ}\text{C}$ .)
Rated voltage ( $U_R$ )	100VDC, 250VDC, 400VDC, 630VDC
Capacitance tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)
$\tan \delta$	0.01max at 1kHz
Voltage proof	$U_R \times 150\%$ 60s
Insulation resistance	$0.33 \mu\text{F} \geq : 9000\text{M}\Omega \text{ min}$ $0.33 \mu\text{F} < : 3000\Omega \text{ Fmin}$
Reference standard	JIS C 5101-2, JIS C 5101-1

**◆OUTLINE**

**◆PART NUMBER**


Symbol	$U_R$
100	100VDC
250	250VDC
400	400VDC
630	630VDC

Symbol	Tolerance
J	$\pm 5\%$
K	$\pm 10\%$

Symbol	Lead style	Symbol	Lead style
Blank	Long lead type	TC	Style A, Ammo pack $P=12.7$ $P_0=12.7$ $LS=5.0$
E7	Lead forming cut $LS=7.5$	TX	Style B, Ammo pack $P=15.0$ $P_0=15.0$ $LS=5.0$
H7	Lead forming cut $LS=10.0$	TL( $F=10$ ) TJ( $F \geq 15$ )	Style C, Ammo pack $P=25.4$ $P_0=12.7$ $LS=5.0$
Y7	Lead forming cut $LS=15.0$	TH	Style D, Ammo pack $P=15.0$ $P_0=15.0$ $LS=7.5$
17	Lead forming cut $LS=22.5$	TN	Style E, Ammo pack $P=30.0$ $P_0=15.0$ $LS=7.5$
S7	Lead forming cut $LS=5.0$	TS( $F \leq 7.5$ )	Style S, Ammo pack $P=12.7$ $P_0=12.7$
W7	Lead forming cut $LS=7.5$	TS( $F=10$ )	Style S, Ammo pack $P=25.4$ $P_0=12.7$

**◆ DIMENSIONS AND QUANTITY**
**◆ RATED VOLTAGE : 100VDC**

Part No.	cap(μF)	Dimensions (mm)						Typical Packaging Quantity (pcs)							
								Long Lead type		Taping Ammo pack type - style					
		A	B	C	F±1.0	LS±0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
100MMB224□**	0.22	10.0	4.6	8.8	7.5	5.0/7.5	0.6	200	2,000	1,500	—	—	—	1,500	
100MMB274□**	0.27	10.0	4.8	10.2	7.5	5.0/7.5	0.6	200	2,000	1,500	—	—	—	1,500	
100MMB334□**	0.33	10.0	4.8	11.7	7.5	5.0/7.5	0.6	200	2,000	1,500	—	—	—	1,500	
100MMB394□**	0.39	10.0	5.2	12.1	7.5	5.0/7.5	0.6	200	2,000	1,000	—	—	—	1,000	
100MMB474□**	0.47	10.0	5.6	12.6	7.5	5.0/7.5	0.6	200	2,000	1,000	—	—	—	1,000	
100MMB564□**	0.56	12.5	5.6	11.4	10.0	5.0/7.5/10.0	0.6	200	2,000	—	1,000	500	—	500	
100MMB684□**	0.68	12.5	6.4	11.9	10.0	5.0/7.5/10.0	0.6	200	2,000	—	1,000	500	—	500	
100MMB824□**	0.82	12.5	6.0	14.0	10.0	5.0/7.5/10.0	0.6	200	1,000	—	1,000	500	—	500	
100MMB105□**	1.0	12.5	6.6	14.6	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
100MMB125□**	1.2	18.0	6.5	14.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
100MMB155□**	1.5	18.0	7.5	15.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
100MMB185□**	1.8	18.0	8.0	15.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	400	400	—	
100MMB225□**	2.2	18.0	8.5	16.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	400	400	—	
100MMB275□**	2.7	18.0	9.5	17.5	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	—	—	—	
100MMB335□**	3.3	18.0	10.0	18.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	—	—	—	
100MMB395□**	3.9	25.5	8.0	16.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
100MMB475□**	4.7	25.5	9.0	17.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	

□ : Tolerance (J:±5%, K:±10%)      \*\* : Suffix

**◆ RATED VOLTAGE : 250VDC**

Part No.	cap(μF)	Dimensions (mm)						Typical Packaging Quantity (pcs)							
								Long Lead type		Taping Ammo pack type - style					
		A	B	C	F±1.0	LS±0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
250MMB103□**	0.01	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB123□**	0.012	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB153□**	0.015	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB183□**	0.018	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB223□**	0.022	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB273□**	0.027	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB333□**	0.033	10.3	5.0	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB393□**	0.039	10.3	4.5	8.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB473□**	0.047	10.3	4.5	8.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB563□**	0.056	10.3	4.8	8.8	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB683□**	0.068	10.3	5.0	9.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB823□**	0.082	10.3	5.5	9.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
250MMB104□**	0.1	10.3	6.0	10.0	7.5	5.0/7.5	0.6	200	6,000	1,000	—	—	—	1,000	
250MMB124□**	0.12	10.3	6.0	10.0	7.5	5.0/7.5	0.6	200	6,000	1,000	—	—	—	1,000	
250MMB154□**	0.15	10.3	6.0	11.5	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
250MMB184□**	0.18	12.8	5.0	11.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
250MMB224□**	0.22	12.8	5.5	11.5	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
250MMB274□**	0.27	12.8	6.5	12.0	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
250MMB334□**	0.33	12.8	6.5	13.0	10.0	5.0/7.5/10.0	0.6	200	3,000	—	1,000	500	—	500	
250MMB394□**	0.39	18.0	5.0	11.0	15.0	5.0/7.5/15.0	0.6	200	3,000	—	—	500	500	—	
250MMB474□**	0.47	18.0	5.5	11.5	15.0	5.0/7.5/15.0	0.6	100	3,000	—	—	500	500	—	
250MMB564□**	0.56	18.0	5.5	13.0	15.0	5.0/7.5/15.0	0.6	100	2,000	—	—	500	500	—	
250MMB684□**	0.68	18.0	6.0	13.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	500	—	
250MMB824□**	0.82	18.0	6.5	14.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
250MMB105□**	1.0	18.0	7.0	14.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
250MMB125□**	1.2	18.0	7.4	16.5	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	400	—	
250MMB155□**	1.5	18.0	8.3	17.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	300	—	
250MMB185□**	1.8	25.5	7.0	16.2	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
250MMB225□**	2.2	25.5	7.8	17.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
250MMB275□**	2.7	25.5	9.0	18.0	22.5	22.5	0.8	200	800	—	—	—	—	—	
250MMB335□**	3.3	25.5	10.0	19.0	22.5	22.5	0.8	200	800	—	—	—	—	—	
250MMB395□**	3.9	25.5	11.0	20.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
250MMB475□**	4.7	25.5	12.3	21.3	22.5	22.5	0.8	100	500	—	—	—	—	—	
250MMB565□**	5.6	31.0	11.0	22.0	27.5	—	0.8	100	500	—	—	—	—	—	
250MMB685□**	6.8	31.0	12.5	23.3	27.5	—	0.8	100	400	—	—	—	—	—	
250MMB825□**	8.2	31.0	14.0	24.5	27.5	—	0.8	50	400	—	—	—	—	—	
250MMB106□**	10.0	31.0	15.7	26.3	27.5	—	0.8	50	300	—	—	—	—	—	

□ : Tolerance (J:±5%, K:±10%)      \*\* : Suffix

**◆RATED VOLTAGE : 400VDC**

Part No.	cap(μF)	Dimensions (mm)						Typical Packaging Quantity (pcs)							
								Long Lead type		Taping Ammo pack type - style					
		A	B	C	F±1.0	LS±0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
400MMB103□**	0.01	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB123□**	0.012	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB153□**	0.015	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB183□**	0.018	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB223□**	0.022	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB273□**	0.027	10.3	4.5	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB333□**	0.033	10.3	5.0	8.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
400MMB393□**	0.039	12.8	5.0	8.0	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,500	500	—	500	
400MMB473□**	0.047	12.8	5.0	8.0	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,500	500	—	500	
400MMB563□**	0.056	12.8	5.5	8.5	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,500	500	—	500	
400MMB683□**	0.068	12.8	5.5	8.5	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,000	500	—	500	
400MMB823□**	0.082	12.8	5.5	8.5	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
400MMB104□**	0.1	12.8	6.0	9.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
400MMB124□**	0.12	18.0	5.5	9.0	15.0	5.0/7.5/15.0	0.6	200	4,000	—	—	500	500	—	
400MMB154□**	0.15	18.0	6.0	9.0	15.0	5.0/7.5/15.0	0.6	200	4,000	—	—	500	500	—	
400MMB184□**	0.18	18.0	6.5	9.5	15.0	5.0/7.5/15.0	0.6	200	3,000	—	—	500	500	—	
400MMB224□**	0.22	18.0	5.5	12.5	15.0	5.0/7.5/15.0	0.6	100	3,000	—	—	500	500	—	
400MMB274□**	0.27	18.0	6.0	13.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	500	—	
400MMB334□**	0.33	18.0	6.5	13.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
400MMB394□**	0.39	18.0	7.0	14.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
400MMB474□**	0.47	18.0	7.5	16.0	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	500	400	—	
400MMB564□**	0.56	25.5	6.0	15.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
400MMB684□**	0.68	25.5	6.5	15.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
400MMB824□**	0.82	25.5	7.0	16.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
400MMB105□**	1.0	25.5	7.5	18.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
400MMB125□**	1.2	25.5	8.5	18.5	22.5	22.5	0.8	200	800	—	—	—	—	—	
400MMB155□**	1.5	31.0	8.5	19.0	27.5	—	0.8	200	800	—	—	—	—	—	
400MMB185□**	1.8	31.0	9.0	20.0	27.5	—	0.8	100	500	—	—	—	—	—	
400MMB225□**	2.2	31.0	10.5	21.0	27.5	—	0.8	100	500	—	—	—	—	—	
400MMB275□**	2.7	31.0	12.0	22.0	27.5	—	0.8	100	500	—	—	—	—	—	
400MMB335□**	3.3	31.0	13.0	24.0	27.5	—	0.8	50	400	—	—	—	—	—	
400MMB395□**	3.9	31.0	14.5	25.0	27.5	—	0.8	50	400	—	—	—	—	—	
400MMB475□**	4.7	31.0	16.0	27.0	27.5	—	0.8	50	300	—	—	—	—	—	

□ : Tolerance (J:±5%, K:±10%)      \*\* : Suffix

**◆RATED VOLTAGE : 630VDC**

Part No.	cap(μF)	Dimensions (mm)						Typical Packaging Quantity (pcs)							
								Long Lead type		Taping Ammo pack type - style					
		A	B	C	F±1.0	LS±0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
630MMB103□**	0.01	12.8	4.5	8.0	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,500	500	—	500	
630MMB123□**	0.012	12.8	5.0	8.0	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,500	500	—	500	
630MMB153□**	0.015	12.8	5.3	8.5	10.0	5.0/7.5/10.0	0.6	200	6,000	—	1,000	500	—	500	
630MMB183□**	0.018	12.8	5.5	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
630MMB223□**	0.022	12.8	5.5	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
630MMB273□**	0.027	12.8	5.5	10.5	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
630MMB333□**	0.033	12.8	6.0	11.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
630MMB393□**	0.039	12.8	6.0	13.0	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
630MMB473□**	0.047	12.8	6.5	13.3	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
630MMB563□**	0.056	18.0	5.5	10.3	15.0	5.0/7.5/15.0	0.6	200	4,000	—	—	500	500	—	
630MMB683□**	0.068	18.0	6.0	10.7	15.0	5.0/7.5/15.0	0.6	200	3,000	—	—	500	500	—	
630MMB823□**	0.082	18.0	6.0	11.2	15.0	5.0/7.5/15.0	0.6	100	3,000	—	—	500	500	—	
630MMB104□**	0.1	18.0	6.0	13.0	15.0	5.0/7.5/15.0	0.6	100	2,000	—	—	500	500	—	
630MMB124□**	0.12	18.0	6.5	13.5	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	500	—	
630MMB154□**	0.15	18.0	7.0	14.2	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
630MMB184□**	0.18	18.0	7.5	15.0	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	400	400	—	
630MMB224□**	0.22	18.0	8.3	15.6	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	300	—	
630MMB274□**	0.27	25.5	7.0	14.5	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
630MMB334□**	0.33	25.5	7.8	15.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
630MMB394□**	0.39	25.5	8.0	17.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
630MMB474□**	0.47	25.5	8.8	18.0	22.5	22.5	0.8	200	800	—	—	—	—	—	
630MMB564□**	0.56	25.5	9.0	20.0	22.5	22.5	0.8	200	800	—	—	—	—	—	
630MMB684□**	0.68	25.5	10.3	21.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
630MMB824□**	0.82	31.0	9.8	20.5	27.5	—	0.8	100	500	—	—	—	—	—	
630MMB105□**	1.0	31.0	11.0	22.0	27.5	—	0.8	100	500	—	—	—	—	—	
630MMB125□**	1.2	31.0	12.5	23.0	27.5	—	0.8	100	400	—	—	—	—	—	
630MMB155□**	1.5	31.0	14.0	24.5	27.5	—	0.8	50	400	—	—	—	—	—	
630MMB185□**	1.8	31.0	15.5	26.0	27.5	—	0.8	50	300	—	—	—	—	—	
630MMB225□**	2.2	31.0	17.0	28.0	27.5	—	0.8	50	300	—	—	—	—	—	

□ : Tolerance (J:±5%, K:±10%)      \*\* : Suffix

◆ **PERMISSIBLE CURRENT FOR FREQUENCY**

