

MMG SERIES

UPGRADE

◆ **FEATURES**

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

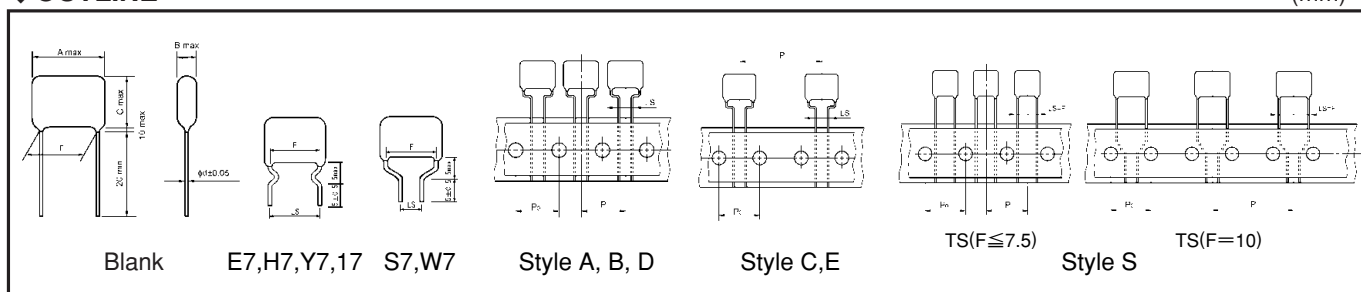


◆ **SPECIFICATIONS**

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°C .)
Rated voltage (U_R)	250VDC, 400VDC, 450VDC, 630VDC
Capacitance tolerance	$\pm 5\%(\text{J})$, $\pm 10\%(\text{K})$
$\tan \delta$	0.01max at 1kHz
Voltage proof	$U_R \times 150\%$ 60s
Insulation resistance	$0.33 \mu\text{F} \geq : 15000 \text{M}\Omega \text{ min}$ $0.33 \mu\text{F} < : 5000 \Omega \text{ Fmin}$
Reference standard	JIS C 5101-2, JIS C 5101-1

◆ **OUTLINE**

(mm)



◆ **PART NUMBER**

□□□ MMG □□□ □ □□□ □□
 Rated Voltage Series Rated capacitance Tolerance Sub mark Suffix

Symbol	U_R
250	250VDC
400	400VDC
450	450VDC
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 $P=12.7$ $P_o=12.7$ $LS=5.0$
E7	Lead forming cut $LS=7.5$	TX	Style B, Ammo pack $P=15.0$ $P_o=15.0$ $LS=5.0$
H7	Lead forming cut $LS=10.0$	TL($F=10$) TJ($F \geq 15$)	Style C, Ammo pack $P=25.4$ $P_o=12.7$ $LS=5.0$
Y7	Lead forming cut $LS=15.0$	TH	Style D, Ammo pack $P=15.0$ $P_o=15.0$ $LS=7.5$
17	Lead forming cut $LS=22.5$	TN	Style E, Ammo pack $P=30.0$ $P_o=15.0$ $LS=7.5$
S7	Lead forming cut $LS=5.0$	TS($F \leq 7.5$)	Style S, Ammo pack $P=12.7$ $P_o=12.7$
W7	Lead forming cut $LS=7.5$	TS($F=10$)	Style S, Ammo pack $P=25.4$ $P_o=12.7$

◆DIMENSIONS AND QUANTITY

◆RATED VOLTAGE : 250VDC

Part No.	cap(μ F)	Dimensions (mm)							Typical Packaging Quantity (pcs)						
									Long Lead type		Taping Ammo pack type - style				
		A	B	C	F $\pm$ 1.0	LS $\pm$ 0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
250MMG104	0.1	10.0	5.5	9.0	7.5	5.0/7.5	0.6	200	6,000	1,000	—	—	—	1,000	
250MMG124	0.12	10.0	5.5	10.0	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
250MMG154	0.15	10.0	5.5	10.5	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
250MMG184	0.18	10.0	6.0	10.0	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
250MMG224	0.22	10.0	6.5	10.5	7.5	5.0/7.5	0.6	200	4,000	1,000	—	—	—	1,000	
250MMG274	0.27	10.0	6.5	12.0	7.5	5.0/7.5	0.6	200	4,000	—	—	—	—	—	
250MMG334	0.33	10.0	6.5	13.5	7.5	5.0/7.5	0.6	200	3,000	—	—	—	—	—	
250MMG394	0.39	12.5	6.5	12.0	10.0	5.0/7.5/10.0	0.6	200	3,000	—	—	—	—	—	
250MMG474	0.47	12.5	6.5	14.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	—	—	—	—	
250MMG564	0.56	12.5	7.0	14.5	10.0	5.0/7.5/10.0	0.6	100	2,000	—	—	—	—	—	
250MMG684	0.68	12.5	7.0	16.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	—	—	—	—	
250MMG824	0.82	12.5	7.5	17.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	—	—	—	—	
250MMG105	1.0	12.5	8.5	17.5	10.0	5.0/7.5/10.0	0.6	100	1,000	—	—	—	—	—	
250MMG125	1.2	12.5	9.5	18.5	10.0	5.0/7.5/10.0	0.6	200	1,000	—	—	—	—	—	
250MMG155	1.5	12.5	10.5	20.0	10.0	5.0/7.5/10.0	0.6	200	1,000	—	—	—	—	—	
250MMG185	1.8	17.8	8.5	18.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	—	—	—	
250MMG225	2.2	17.8	9.5	19.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	—	—	—	
250MMG275	2.7	17.8	10.5	20.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	—	—	—	
250MMG335	3.3	17.8	12.0	21.5	15.0	5.0/7.5/15.0	0.8	200	800	—	—	—	—	—	
250MMG395	3.9	17.8	13.0	22.5	15.0	5.0/7.5/15.0	0.8	200	800	—	—	—	—	—	
250MMG475	4.7	17.8	14.5	24.0	15.0	5.0/7.5/15.0	0.8	100	500	—	—	—	—	—	
250MMG565	5.6	25.5	12.0	23.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
250MMG685	6.8	25.5	13.5	25.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
250MMG825	8.2	25.5	15.0	26.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
250MMG106	10.0	25.5	16.5	28.0	22.5	22.5	0.8	100	500	—	—	—	—	—	

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

◆RATED VOLTAGE : 400VDC

Part No.	cap(μ F)	Dimensions (mm)							Typical Packaging Quantity (pcs)						
									Long Lead type		Taping Ammo pack type - style				
		A	B	C	F $\pm$ 1.0	LS $\pm$ 0.5	d	Bag	Carton	A TC	B, D TX, TH	C TL, TJ	E TN	S TS	
400MMG104	**	0.1	10.0	5.5	10.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500
400MMG124	**	0.12	12.8	5.0	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500
400MMG154	**	0.15	12.8	5.0	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500
400MMG184	**	0.18	12.8	6.0	10.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500
400MMG224	**	0.22	12.8	6.0	11.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500
400MMG274	**	0.27	12.8	6.0	13.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500
400MMG334	**	0.33	12.8	7.0	14.0	10.0	5.0/7.5/10.0	0.6	200	3,000	—	1,000	500	—	500
400MMG394	**	0.39	12.8	7.5	14.5	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	500	—	500
400MMG474	**	0.47	12.8	8.0	15.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	500	—	500
400MMG564	**	0.56	17.8	6.5	14.0	15.0	5.0/7.5/15.0	0.6	100	2,000	—	—	500	500	—
400MMG684	**	0.68	17.8	6.5	15.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	500	—
400MMG824	**	0.82	17.8	7.5	16.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—
400MMG105	**	1.0	17.8	8.0	16.5	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	500	400	—
400MMG125	**	1.2	17.8	8.5	19.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	400	—
400MMG155	**	1.5	25.5	8.0	17.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—
400MMG185	**	1.8	25.5	8.5	18.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—
400MMG225	**	2.2	25.5	9.5	19.5	22.5	22.5	0.8	200	800	—	—	—	—	—
400MMG275	**	2.7	25.5	10.5	21.5	22.5	22.5	0.8	200	800	—	—	—	—	—
400MMG335	**	3.3	25.5	11.5	22.5	22.5	22.5	0.8	100	500	—	—	—	—	—
400MMG395	**	3.9	25.5	12.5	23.5	22.5	22.5	0.8	100	500	—	—	—	—	—
400MMG475	**	4.7	25.5	14.0	25.0	22.5	22.5	0.8	100	500	—	—	—	—	—

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

◆RATED VOLTAGE : 450VDC

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	B, D	C	E	S	
										TC	TX, TH	TL, TJ	TN	TS	
450MMG104□**	0.1	10.0	5.5	10.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
450MMG124□**	0.12	12.8	5.0	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
450MMG154□**	0.15	12.8	5.0	10.0	10.0	5.0/7.5/10.0	0.6	200	5,000	—	1,000	500	—	500	
450MMG184□**	0.18	12.8	6.0	10.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
450MMG224□**	0.22	12.8	6.0	11.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
450MMG274□**	0.27	12.8	6.0	13.5	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
450MMG334□**	0.33	12.8	7.0	14.0	10.0	5.0/7.5/10.0	0.6	200	3,000	—	1,000	500	—	500	
450MMG394□**	0.39	12.8	7.5	14.5	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	500	—	500	
450MMG474□**	0.47	12.8	8.0	15.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	500	—	500	
450MMG564□**	0.56	17.8	6.5	14.0	15.0	5.0/7.5/15.0	0.6	100	2,000	—	—	500	500	—	
450MMG684□**	0.68	17.8	6.5	15.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	500	—	
450MMG824□**	0.82	17.8	7.5	16.0	15.0	5.0/7.5/15.0	0.8	100	2,000	—	—	500	400	—	
450MMG105□**	1.0	17.8	8.0	16.5	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	500	400	—	
450MMG125□**	1.2	17.8	8.5	19.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	400	—	
450MMG155□**	1.5	25.5	8.0	17.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
450MMG185□**	1.8	25.5	8.5	18.0	22.5	22.5	0.8	200	1,000	—	—	—	—	—	
450MMG225□**	2.2	25.5	9.5	19.5	22.5	22.5	0.8	200	800	—	—	—	—	—	

□ : 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	
630MMG103□**	0.01	10.0	5.5	8.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
630MMG123□**	0.012	10.0	5.5	9.0	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
630MMG153□**	0.015	10.0	6.0	9.5	7.5	5.0/7.5	0.6	200	6,000	1,500	—	—	—	1,500	
630MMG183□**	0.018	10.0	6.5	10.0	7.5	5.0/7.5	0.6	200	6,000	1,000	—	—	—	1,000	
630MMG223□**	0.022	10.0	6.0	9.0	7.5	5.0/7.5	0.6	200	6,000	1,000	—	—	—	1,000	
630MMG273□**	0.027	10.0	6.0	9.5	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
630MMG333□**	0.033	10.0	6.0	11.0	7.5	5.0/7.5	0.6	200	5,000	1,000	—	—	—	1,000	
630MMG393□**	0.039	10.0	6.5	11.0	7.5	5.0/7.5	0.6	200	4,000	1,000	—	—	—	1,000	
630MMG473□**	0.047	10.0	7.5	12.5	7.5	5.0/7.5	0.6	200	4,000	1,000	—	—	—	1,000	
630MMG563□**	0.056	12.8	6.0	11.0	10.0	5.0/7.5/10.0	0.6	200	4,000	—	1,000	500	—	500	
630MMG683□**	0.068	12.8	6.5	11.0	10.0	5.0/7.5/10.0	0.6	200	3,000	—	500	500	—	500	
630MMG823□**	0.082	12.8	7.0	11.5	10.0	5.0/7.5/10.0	0.6	100	3,000	—	500	500	—	500	
630MMG104□**	0.1	12.8	7.0	13.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	500	—	500	
630MMG124□**	0.12	12.8	7.5	14.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	400	—	400	
630MMG154□**	0.15	12.8	8.0	14.5	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	400	—	400	
630MMG184□**	0.18	12.8	9.0	15.0	10.0	5.0/7.5/10.0	0.6	100	2,000	—	500	400	—	400	
630MMG224□**	0.22	12.8	10.0	16.5	10.0	5.0/7.5/10.0	0.6	100	1,000	—	500	400	—	400	
630MMG274□**	0.27	17.8	8.0	14.5	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	400	300	—	
630MMG334□**	0.33	17.8	8.5	14.0	15.0	5.0/7.5/15.0	0.8	100	1,000	—	—	400	300	—	
630MMG394□**	0.39	17.8	8.5	17.0	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	400	300	—	
630MMG474□**	0.47	17.8	9.5	17.5	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	300	300	—	
630MMG564□**	0.56	17.8	10.0	19.5	15.0	5.0/7.5/15.0	0.8	200	1,000	—	—	300	300	—	
630MMG684□**	0.68	17.8	11.0	20.5	15.0	5.0/7.5/15.0	0.8	200	800	—	—	300	200	—	
630MMG824□**	0.82	25.5	9.0	19.5	22.5	22.5	0.8	200	800	—	—	—	—	—	
630MMG105□**	1.0	25.5	10.0	20.5	22.5	22.5	0.8	200	800	—	—	—	—	—	
630MMG125□**	1.2	25.5	11.0	21.5	22.5	22.5	0.8	100	500	—	—	—	—	—	
630MMG155□**	1.5	25.5	12.5	22.5	22.5	22.5	0.8	100	500	—	—	—	—	—	
630MMG185□**	1.8	25.5	14.0	24.0	22.5	22.5	0.8	100	500	—	—	—	—	—	
630MMG225□**	2.2	25.5	15.5	25.5	22.5	22.5	0.8	100	500	—	—	—	—	—	

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

◆ **PERMISSIBLE CURRENT FOR FREQUENCY**

