

MXG SERIES

UPGRADE

105°C Standard, Snap-in Terminal Type

◆FEATURES

- Load Life : 105°C 3000 hours. (50~100V.DC:2000 hours)
- Smaller size than MXC series.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics																					
Category Temperature Range	-40~+105°C	-25~+105°C																				
Rated Voltage Range	10~250V.DC	400~500V.DC																				
Capacitance Tolerance	±20% (20°C, 120Hz)																					
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I=Leakage Current(µA) C=Capacitance(µF) V=Rated Voltage(V)																					
Dissipation Factor(MAX) (tanδ)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80~100</th> <th>160~450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>tanδ</td> <td>0.55</td> <td>0.50</td> <td>0.45</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.25</td> </tr> </tbody> </table> (20°C, 120Hz)		Rated Voltage (V)	10	16	25	35	50	63	80~100	160~450	500	tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.25
Rated Voltage (V)	10	16	25	35	50	63	80~100	160~450	500													
tanδ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.25													
Endurance	After applying rated voltage with rated ripple current for 3000 hours (50~100V:2000 hours) at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </tbody> </table>		Capacitance Change	Within ±20% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.														
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10~100</th> <th>160~250</th> <th>400~450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>4</td> <td>8</td> <td>12</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>15</td> <td>-</td> <td>-</td> </tr> </tbody> </table> (120Hz)		Rated Voltage (V)	10~100	160~250	400~450	500	Z(-25°C)/Z(20°C)	3	4	8	12	Z(-40°C)/Z(20°C)	12	15	-	-					
Rated Voltage (V)	10~100	160~250	400~450	500																		
Z(-25°C)/Z(20°C)	3	4	8	12																		
Z(-40°C)/Z(20°C)	12	15	-	-																		

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency (Hz)		60(50)	120	500	1k	10k≤
Coefficient	10~100V.DC	0.90	1.00	1.05	1.10	1.15
	160~250V.DC	0.80	1.00	1.20	1.30	1.50
	400~500V.DC	0.80	1.00	1.20	1.25	1.40

◆PART NUMBER

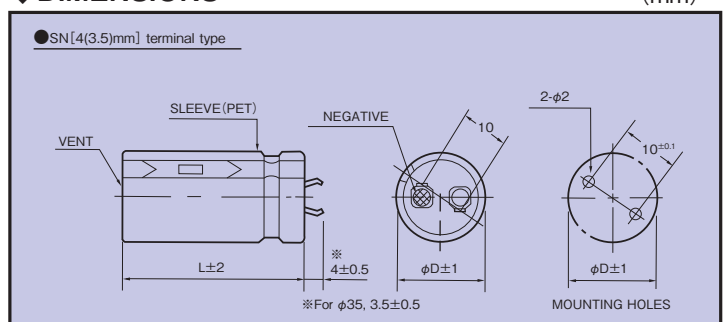
□□□ MXG □□□□□ M □□□ SN D×L
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆OPTION

	Code
PET Sleeve without plate	EFC

◆DIMENSIONS

(mm)



◆ STANDARD SIZE

Cap (μF)	V.DC φD	10					16					
		φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	
6800		20×25; 1.31					20×25; 1.80					
8200		20×30; 1.59					20×30; 2.08	22×25; 2.08				
10000		20×30; 1.88	22×25; 1.77				20×35; 2.15	22×30; 2.15				
12000		20×35; 2.18	22×30; 2.10	25×25; 1.94			20×40; 2.31	22×30; 2.31	25×25; 2.31			
15000		20×40; 2.27	22×35; 2.23	25×30; 2.10				22×35; 2.68	25×30; 2.68			
18000			22×40; 2.41	25×30; 2.34	30×25; 2.25			22×40; 3.20	25×30; 3.20	30×25; 3.20		
22000			22×45; 2.58	25×35; 2.54	30×30; 2.50			22×45; 3.36	25×35; 3.36	30×30; 3.36		
27000			22×50; 3.17	25×40; 3.07	30×30; 2.95			22×50; 3.85	25×40; 3.85	30×30; 3.85		
33000				25×45; 3.39	30×35; 3.33	35×30; 3.21			25×45; 4.30	30×35; 4.30	35×30; 4.30	
39000					30×40; 3.70	35×35; 3.68			25×50; 4.81	30×40; 4.81	35×35; 4.81	
47000					30×45; 4.22	35×40; 4.16				30×45; 5.53	35×40; 5.53	
56000						35×45; 5.00				30×50; 6.00	35×45; 6.00	
68000											35×50; 6.40	

Cap (μF)	V.DC φD	25					35					
		φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	
2700							20×25; 1.29					
3300							20×30; 1.57					
3900							20×30; 1.78	22×25; 1.78				
4700		20×25; 1.65					20×35; 2.02	22×30; 2.02				
5600		20×30; 1.85	22×25; 1.85				20×40; 2.13	22×35; 2.13	25×25; 2.13			
6800		20×35; 2.11	22×30; 2.11					22×40; 2.41	25×30; 2.41			
8200		20×40; 2.34	22×30; 2.34	25×25; 2.34				22×45; 2.85	25×35; 2.85	30×25; 2.85		
10000			22×35; 2.65	25×30; 2.65				22×50; 3.05	25×40; 3.05	30×30; 3.05		
12000			22×40; 2.81	25×30; 2.81	30×25; 2.81				25×45; 3.37	30×35; 3.37	35×30; 3.37	
15000			22×45; 3.13	25×35; 3.13	30×30; 3.13				25×50; 3.72	30×40; 3.72	35×35; 3.72	
18000				25×40; 3.56	30×30; 3.56					30×45; 4.37	35×35; 4.37	
22000				25×50; 4.04	30×35; 4.04	35×30; 4.04				30×50; 4.92	35×40; 4.92	
27000					30×40; 4.74	35×35; 4.74					35×50; 5.30	
33000					30×50; 5.50	35×40; 5.50						
39000						35×45; 5.80						
47000						35×50; 6.30						

Cap (μF)	V.DC φD	50					63					
		φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35	
1500							20×25; 1.47					
1800							20×30; 1.58					
2200		20×25; 1.60					20×35; 1.82					
2700		20×30; 1.73	22×25; 1.73					22×30; 2.11	25×25; 2.11			
3300		20×35; 1.97	22×30; 1.97					22×35; 2.33	25×30; 2.33			
3900		20×40; 2.22	22×35; 2.22	25×25; 2.22				22×40; 2.55	25×30; 2.55	30×25; 2.55		
4700		20×45; 2.43	22×40; 2.43	25×30; 2.43				22×45; 2.97	25×35; 2.97	30×30; 2.97		
5600			22×45; 2.75	25×35; 2.75	30×25; 2.75				25×40; 3.22	30×30; 3.22	35×25; 3.22	
6800			22×50; 3.30	25×40; 3.30	30×30; 3.30	35×25; 3.30			25×45; 3.65	30×35; 3.65	35×30; 3.65	
8200				25×45; 3.60	30×35; 3.60	35×30; 3.60				30×40; 4.04	35×35; 4.04	
10000				25×50; 4.05	30×40; 4.05	35×30; 4.05				30×45; 4.48	35×40; 4.48	
12000					30×45; 4.56	35×35; 4.56					35×45; 4.75	
15000					30×50; 4.77	35×40; 4.77					35×50; 5.25	

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size φD×L(mm)

◆ STANDARD SIZE

Cap (μ F)	V.DC ϕ D	80					100				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
680							20x25: 1.15				
820							20x30: 1.32	22x25: 1.32			
1000		20x25: 1.24					20x30: 1.47	22x30: 1.47			
1200		20x30: 1.44	22x25: 1.44				20x35: 1.69	22x30: 1.69	25x25: 1.69		
1500		20x30: 1.59	22x30: 1.59					22x35: 1.98	25x30: 1.98		
1800		20x35: 1.79	22x30: 1.79	25x25: 1.79				22x40: 2.23	25x35: 2.23	30x25: 2.23	
2200		20x40: 2.03	22x35: 2.03	25x30: 2.03				25x40: 2.55	30x30: 2.55	35x25: 2.55	
2700			22x40: 2.39	25x35: 2.39	30x25: 2.39			25x45: 2.89	30x35: 2.89	35x30: 2.89	
3300			22x50: 2.64	25x40: 2.64	30x30: 2.64	35x25: 2.64		25x50: 3.30	30x40: 3.30	35x35: 3.30	
3900				25x45: 2.97	30x30: 2.97	35x30: 2.97				30x45: 3.67	35x35: 3.67
4700				25x50: 3.38	30x35: 3.38	35x30: 3.38				30x50: 3.80	35x40: 3.80
5600					30x40: 3.80	35x35: 3.80					35x45: 4.05
6800					30x50: 4.10	35x40: 4.10					
8200						35x45: 4.30					

Cap (μ F)	V.DC ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
330		20x25: 1.17					20x25: 1.20				
390		20x25: 1.28					20x30: 1.28	22x25: 1.28			
470		20x30: 1.40	22x25: 1.40				20x35: 1.38	22x30: 1.38			
560		20x35: 1.50	22x30: 1.50				20x40: 1.50	22x30: 1.50	25x25: 1.50		
680		20x40: 1.70	22x30: 1.70	25x25: 1.70			20x45: 1.70	22x35: 1.70	25x30: 1.70		
820			22x35: 2.00	25x30: 2.00				22x40: 2.00	25x35: 2.00	30x25: 2.00	
1000			22x40: 2.20	25x35: 2.20	30x25: 2.20				25x40: 2.20	30x30: 2.20	35x25: 2.20
1200				25x40: 2.30	30x30: 2.30	35x25: 2.30			25x45: 2.30	30x35: 2.30	35x30: 2.30
1500				25x45: 2.50	30x35: 2.50	35x30: 2.50			25x50: 2.50	30x40: 2.50	35x30: 2.50
1800					30x40: 2.70	35x35: 2.70				30x45: 2.70	35x35: 2.70
2200					30x45: 2.90	35x40: 2.90				30x50: 2.90	35x40: 2.90
2700						35x45: 3.10					35x50: 3.10

Cap (μ F)	V.DC ϕ D	200					220				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
220							20x25: 0.98				
270		20x25: 0.99					20x30: 1.08	22x25: 1.08			
330		20x30: 1.20	22x25: 1.20				20x30: 1.26	22x25: 1.26			
390		20x30: 1.34	22x25: 1.34				20x35: 1.34	22x30: 1.34	25x25: 1.34		
470		20x35: 1.48	22x30: 1.48	25x25: 1.48			20x40: 1.48	22x35: 1.48	25x25: 1.48		
560		20x40: 1.60	22x35: 1.60	25x25: 1.60			20x45: 1.61	22x40: 1.61	25x30: 1.61	30x25: 1.61	
680			22x40: 1.75	25x30: 1.75	30x25: 1.75			22x45: 1.78	25x35: 1.78	30x25: 1.78	
820			22x45: 2.04	25x35: 2.04	30x25: 2.04			22x50: 1.93	25x40: 1.93	30x30: 1.93	35x25: 1.93
1000				25x45: 2.30	30x30: 2.30				25x50: 2.33	30x35: 2.33	35x30: 2.33
1200				25x50: 2.65	30x35: 2.65	35x30: 2.65				30x40: 2.50	35x35: 2.50
1500					30x45: 2.80	35x35: 2.80				30x50: 2.76	35x40: 2.76
1800					30x50: 3.08	35x40: 3.08					35x45: 3.11
2200						35x45: 3.48					

↑
Ripple Current (A r.m.s./120Hz, 105°C)
Case Size ϕ D×L(mm)

◆ STANDARD SIZE

Cap (μ F)	V.DC ϕ D	250					400				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68							20x25: 0.49				
82							20x25: 0.57	22x25: 0.57			
100							20x30: 0.70	22x25: 0.70			
120							20x35: 0.75	22x30: 0.75	25x25: 0.75		
150							20x40: 0.88	22x35: 0.88	25x25: 0.88		
180								22x35: 0.95	25x30: 0.95	30x25: 0.95	
220		20x25: 1.00						22x45: 1.10	25x35: 1.10	30x25: 1.10	
270		20x30: 1.10	22x25: 1.10					22x50: 1.22	25x40: 1.22	30x30: 1.22	35x25: 1.22
330		20x35: 1.20	22x30: 1.20	25x25: 1.20					25x45: 1.44	30x35: 1.44	35x30: 1.44
390		20x40: 1.30	22x35: 1.30	25x25: 1.30					25x50: 1.55	30x40: 1.55	35x30: 1.55
470		20x45: 1.40	22x40: 1.40	25x30: 1.40	30x25: 1.40					30x45: 1.68	35x35: 1.66
560			22x45: 1.50	25x35: 1.50	30x25: 1.50					30x50: 1.90	35x40: 1.90
680			22x50: 1.70	25x40: 1.70	30x30: 1.70	35x25: 1.70					35x45: 2.12
820				25x45: 2.00	30x35: 2.00	35x30: 2.00					
1000					30x40: 2.20	35x35: 2.20					
1200					30x45: 2.30	35x35: 2.30					
1500						35x45: 2.50					
1800						35x50: 2.70					

Cap (μ F)	V.DC ϕ D	420					450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
56							20x25: 0.44				
68		20x25: 0.50					20x25: 0.50	22x25: 0.50			
82		20x25: 0.64	22x25: 0.64				20x30: 0.64	22x25: 0.64			
100		20x30: 0.66	22x25: 0.66	25x25: 0.66			20x35: 0.69	22x30: 0.69	25x25: 0.69		
120		20x35: 0.81	22x30: 0.81	25x25: 0.81			20x35: 0.72	22x30: 0.72	25x25: 0.72		
150		20x40: 0.84	22x35: 0.84	25x30: 0.84	30x25: 0.84		20x45: 0.79	22x35: 0.79	25x30: 0.79	30x25: 0.79	
180		20x45: 0.91	22x40: 0.91	25x30: 0.91	30x25: 0.91			22x40: 0.87	25x35: 0.87	30x25: 0.87	
220			22x45: 1.05	25x35: 1.05	30x30: 1.05	35x25: 1.05		22x50: 1.05	25x40: 1.05	30x30: 1.05	35x25: 1.05
270				25x40: 1.25	30x30: 1.25	35x25: 1.25			25x45: 1.23	30x35: 1.23	35x30: 1.23
330				25x50: 1.42	30x35: 1.42	35x30: 1.42			25x50: 1.38	30x40: 1.38	35x30: 1.38
390					30x40: 1.61	35x35: 1.61				30x45: 1.61	35x35: 1.61
470					30x45: 1.86	35x40: 1.86				30x50: 1.78	35x40: 1.78
560						35x45: 2.10					35x45: 1.99
680						35x50: 2.20					

Cap (μ F)	V.DC ϕ D	500				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
39		20x25: 0.39				
47		20x30: 0.46	22x25: 0.44			
56		20x35: 0.52	22x30: 0.51			
68		20x40: 0.60	22x30: 0.56	25x25: 0.55		
82		20x45: 0.68	22x35: 0.68	25x30: 0.64	30x25: 0.63	
100			22x40: 0.77	25x35: 0.74	30x25: 0.69	
120			22x50: 0.87	25x35: 0.81	30x30: 0.81	35x25: 0.83
150				25x45: 0.97	30x35: 0.96	35x30: 0.98
180				25x50: 1.10	30x40: 1.07	35x30: 1.06
220					30x45: 1.22	35x40: 1.31
270						35x40: 1.43
330						35x45: 1.63
390						35x55: 1.89
470						35x60: 2.11

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size ϕ D×L(mm)