

**MXG SERIES**

**105°C Miniaturized, Snap-in Terminal Type**

**◆FEATURES**

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



**◆SPECIFICATIONS**

Items	Characteristics																
Category Temperature Range	-40~+105°C	-25~+105°C															
Rated Voltage Range	50~100V.DC	160~500V.DC															
Capacitance Tolerance	±20% (20°C, 120Hz)																
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) $I=(\mu A)$ Leakage Current $C=(\mu F)$ Rated Capacitance $V=(V)$ Rated Voltage																
(tanδ) Dissipation Factor(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>50</th> <th>63</th> <th>80~100</th> <th>160~450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>(20°C, 120Hz)</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.25</td> </tr> </tbody> </table>		Rated Voltage	50	63	80~100	160~450	500	(20°C, 120Hz)	0.35	0.30	0.25	0.20	0.25			
Rated Voltage	50	63	80~100	160~450	500												
(20°C, 120Hz)	0.35	0.30	0.25	0.20	0.25												
Endurance	After applying rated voltage with rated ripple current for 3000 hours (50~100W: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 Ration(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>50~100</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>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> (120Hz)		Rated Voltage	50~100	160~250	400~450	500	Z(-25°C)/Z(20°C)	3	4	8	12	Z(-40°C)/Z(20°C)	12	-	-	-
Rated Voltage	50~100	160~250	400~450	500													
Z(-25°C)/Z(20°C)	3	4	8	12													
Z(-40°C)/Z(20°C)	12	-	-	-													

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency Coefficient

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

**◆PART NUMBER**

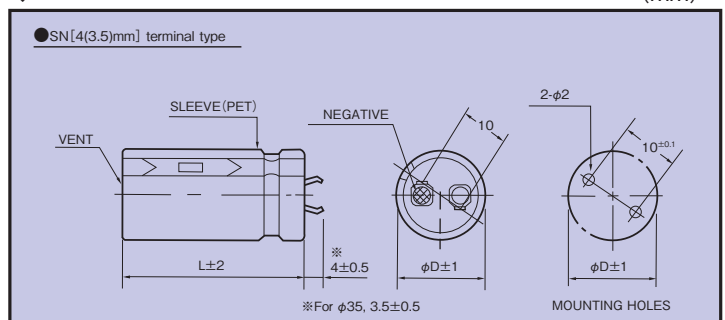
   MXG           M          SN    D×L  
 Rated Voltage    Series    Rated Capacitance    Capacitance Tolerance    Option    Terminal Code    Case Size

**◆OPTION**

	Code
PET Sleeve without plate	EFC

**◆DIMENSIONS**

(mm)



◆ STANDARD SIZE

Cap (μF) \ WV / 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			
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		
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					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

Cap (μF) \ WV / φD	80					100				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
680						20×25; 1.15				
820						20×30; 1.32	22×25; 1.32			
1000	20×25; 1.24					20×30; 1.47				
1200	20×30; 1.44	22×25; 1.44				20×35; 1.69	22×30; 1.69	25×25; 1.69		
1500	20×30; 1.59						22×35; 1.98	25×30; 1.98		
1800	20×35; 1.79	22×30; 1.79	25×25; 1.79				22×40; 2.23		30×25; 2.23	
2200	20×40; 2.03	22×35; 2.03						25×40; 2.55	30×30; 2.55	35×25; 2.55
2700		22×40; 2.39		30×25; 2.39				25×45; 2.89	30×35; 2.89	
3300		22×50; 2.64		30×30; 2.64	35×25; 2.64			25×50; 3.30	30×40; 3.30	
3900			25×45; 2.97	30×30; 2.97					30×45; 3.67	35×35; 3.67
4700			25×50; 3.38	30×35; 3.38	35×30; 3.38				30×50; 3.80	35×40; 3.80
5600				30×40; 3.80	35×35; 3.80					35×45; 4.05
6800				30×50; 4.10	35×40; 4.10					
8200					35×45; 4.30					

Cap (μF) \ WV / φD	160					180				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
330	20×25; 1.17					20×25; 1.20				
390	20×25; 1.28					20×30; 1.28	22×25; 1.28			
470	20×30; 1.40	22×25; 1.40				20×35; 1.38	22×30; 1.38			
560	20×35; 1.50	22×30; 1.50				20×40; 1.50	22×30; 1.50	25×25; 1.50		
680	20×40; 1.70	22×30; 1.70	25×25; 1.70			20×45; 1.70	22×35; 1.70	25×30; 1.70		
820		22×35; 2.00	25×30; 2.00				22×40; 2.00	25×35; 2.00	30×25; 2.00	
1000		22×40; 2.20	25×35; 2.20	30×25; 2.20				25×40; 2.20	30×30; 2.20	35×25; 2.20
1200			25×40; 2.30	30×30; 2.30	35×25; 2.30			25×45; 2.30	30×35; 2.30	35×30; 2.30
1500			25×45; 2.50	30×35; 2.50	35×30; 2.50			25×50; 2.50	30×40; 2.50	35×30; 2.50
1800				30×40; 2.70	35×35; 2.70				30×45; 2.70	35×35; 2.70
2200				30×45; 2.90	35×40; 2.90				30×50; 2.90	35×40; 2.90
2700					35×45; 3.10					35×50; 3.10

Cap (μF) \ WV / φD	200					220				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
220						20×25; 0.98				
270	20×25; 0.99					20×30; 1.08	22×25; 1.08			
330	20×30; 1.20	22×25; 1.20				20×30; 1.26	22×25; 1.26			
390	20×30; 1.34	22×25; 1.34				20×35; 1.34	22×30; 1.34	25×25; 1.34		
470	20×35; 1.48	22×30; 1.48	25×25; 1.48			20×40; 1.48	22×35; 1.48	25×25; 1.48		
560	20×40; 1.60	22×35; 1.60	25×25; 1.60			20×45; 1.61	22×40; 1.61	25×30; 1.61	30×25; 1.61	
680		22×40; 1.75	25×30; 1.75	30×25; 1.75			22×45; 1.78	25×35; 1.78	30×25; 1.78	
820		22×45; 2.04	25×35; 2.04	30×25; 2.04			22×50; 1.93	25×40; 1.93	30×30; 1.93	35×25; 1.93
1000			25×45; 2.30	30×30; 2.30				25×50; 2.33	30×35; 2.33	35×30; 2.33
1200			25×50; 2.65	30×35; 2.65	35×30; 2.65				30×40; 2.50	35×35; 2.50
1500				30×45; 2.80	35×35; 2.80				30×50; 2.76	35×40; 2.76
1800				30×50; 3.08	35×40; 3.08					35×45; 3.11
2200					35×45; 3.48					

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

◆ STANDARD SIZE

Cap ( $\mu$ F)	WV $\phi$ D	250					400				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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 ( $\mu$ F)	WV $\phi$ D	420					450				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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 ( $\mu$ F)	WV $\phi$ D	500				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 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  $\phi$ DxL(mm)