



MXG SERIES

UPGRADE

105°C Miniaturized, Snap-in Terminal Type

◆ FEATURES

- Load Life : 105°C 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 ~ 450V.DC																
Capacitance Tolerance	±20% (20°C, 120Hz)																	
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I = Leakage Current (μ A) V = Rated Voltage (V) C = Rated Capacitance (μ F)																	
Dissipation Factor(MAX) (tan δ)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>50</th> <th>63</th> <th>80 ~ 100</th> <th>160 ~ 450</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> </tr> </tbody> </table>		Rated Voltage (V)	50	63	80 ~ 100	160 ~ 450	(20°C, 120Hz)	0.35	0.30	0.25	0.20						
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(20°C, 120Hz)	0.35	0.30	0.25	0.20														
Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>50 ~ 100</th> <th>160 ~ 250</th> <th>400 ~ 450</th> </tr> </thead> <tbody> <tr> <td>(120Hz)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>4</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Rated Voltage (V)	50 ~ 100	160 ~ 250	400 ~ 450	(120Hz)				Z(-25°C)/Z(20°C)	3	4	8	Z(-40°C)/Z(20°C)	12	-	-
Rated Voltage (V)	50 ~ 100	160 ~ 250	400 ~ 450															
(120Hz)																		
Z(-25°C)/Z(20°C)	3	4	8															
Z(-40°C)/Z(20°C)	12	-	-															
Endurance	After applying rated voltage with rated ripple current for 2000hrs 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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◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k \leq
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
	315 ~ 450WV	0.80	1.00	1.20	1.25	1.40

◆ PART NUMBER

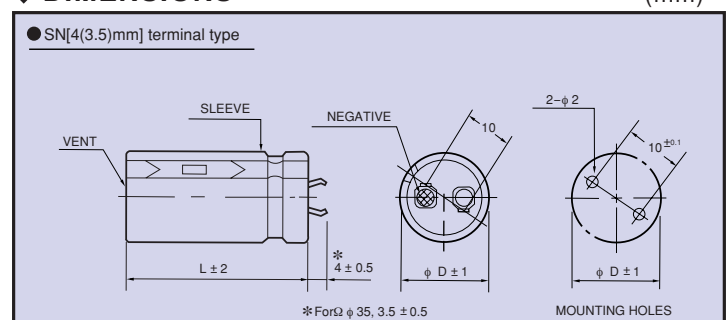
 MXG OOE SN D x L
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆ Option

	Code
without plate	OOE
with plate	Blank

◆ DIMENSIONS

(mm)





◆ STANDARD SIZE, RATED RIPPLE CURRENT

Cap (μ F)	WV ϕ D	50					63									
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35					
1500							20x25	1.47								
1800							20x30	1.58								
2200	20x25	1.60					20x35	1.82								
2700	20x30	1.73	22x25	1.73				22x30	2.11	25x25	2.11					
3300	20x35	1.97	22x30	1.97				22x35	2.33							
3900	20x40	2.22	22x35	2.22	25x25	2.22		22x40	2.55	25x30	2.55	30x25	2.55			
4700	20x45	2.43	22x40	2.43	25x30	2.43		22x45	2.97	25x35	2.97					
5600			22x45	2.75	25x35	2.75	30x25	2.75		25x40	3.22	30x30	3.22	35x25	3.22	
6800			22x50	3.30	25x40	3.30	30x30	3.30	35x25	3.30	25x45	3.65	30x35	3.65	35x30	3.65
8200					25x45	3.60	30x35	3.60				30x40	4.04	35x35	4.04	
10000					25x50	4.05	30x40	4.05	35x30	4.05		30x45	4.48	35x40	4.48	
12000							30x45	4.56	35x35	4.56				35x45	4.75	
15000							30x50	4.77	35x40	4.77				35x50	5.25	

Cap (μ F)	WV 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							
1200	20x30	1.44	22x25	1.44			20x35	1.69	22x30	1.69	25x25	1.69			
1500	20x30	1.59						22x35	1.98	25x30	1.98				
1800	20x35	1.79	22x30	1.79	25x25	1.79		22x40	2.23		30x25	2.23			
2200	20x40	2.03	22x35	2.03					25x40	2.55	30x30	2.55	35x25	2.55	
2700			22x40	2.39		30x25	2.39		25x45	2.89	30x35	2.89			
3300			22x50	2.64		30x30	2.64	35x25	2.64	25x50	3.30	30x40	3.30		
3900					25x45	2.97	30x30	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)	WV 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)	WV 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, RATED RIPPLE CURRENT

Cap (μ F)	WV 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)	WV 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						

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