



MXC SERIES

105°C Standard, Snap-in Terminal Type

◆ FEATURES

- Load Life : 105°C 3000 hours.
- Smaller size with higher ripple current endurance than MXR series.
- RoHS compliance.



◆ SPECIFICATIONS

Items	Characteristics																									
Category Temperature Range	-40 ~ +105°C	-25 ~ +105°C																								
Rated Voltage Range	10 ~ 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>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160~400</th> <th>420~450</th> <th>(20°C, 120Hz)</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>0.15</td> <td>0.20</td> <td></td> </tr> </tbody> </table>		Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450	(20°C, 120Hz)	tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20	
Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450	(20°C, 120Hz)															
tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.20																
Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>10 ~ 100</th> <th>160 ~ 250</th> <th>315 ~ 450</th> <th>(120Hz)</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C) / Z(20°C)</td> <td>3</td> <td>3</td> <td>8</td> <td></td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>12</td> <td>-</td> <td>-</td> <td></td> </tr> </tbody> </table>		Rated Voltage (V)	10 ~ 100	160 ~ 250	315 ~ 450	(120Hz)	Z(-25°C) / Z(20°C)	3	3	8		Z(-40°C) / Z(20°C)	12	-	-										
Rated Voltage (V)	10 ~ 100	160 ~ 250	315 ~ 450	(120Hz)																						
Z(-25°C) / Z(20°C)	3	3	8																							
Z(-40°C) / Z(20°C)	12	-	-																							
Endurance	After applying rated voltage with rated ripple current for 3000hrs 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	10 ~ 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

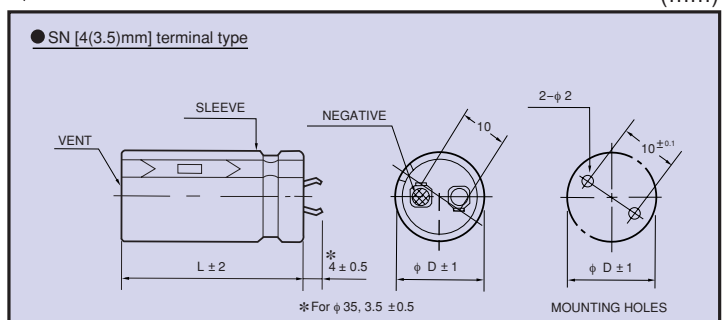
□□□	MXC	□□□□□	□	OOE	SN	D × L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Terminal Code	Case Size

◆ Option

	Code
without plate	OOE
with plate	Blank

◆ DIMENSIONS

(mm)





◆ STANDARD SIZE, RATED RIPPLE CURRENT

Cap (μF)	WV ϕD	10					16					
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	
6800	20x25	1.31					20x25	1.80				
8200	20x30	1.59					20x30	2.08	22x25	2.08		
10000	20x30	1.88	22x25	1.77			20x35	2.15	22x30	2.15		
12000	20x35	2.18	22x30	2.10	25x25	1.94	20x40	2.31	22x30	2.31	25x25	2.31
15000	20x40	2.27	22x35	2.23	25x30	2.10			22x35	2.68	25x30	2.68
18000			22x40	2.41	25x30	2.34	30x25	2.25	22x40	3.20	25x30	3.20
22000			22x45	2.58	25x35	2.54	30x30	2.50	22x45	3.36	25x35	3.36
27000			22x50	3.17	25x40	3.07	30x30	2.95	22x50	3.85	25x40	3.85
33000					25x45	3.39	30x35	3.33	35x30	3.21	25x45	4.30
39000							30x40	3.70	35x35	3.68	25x50	4.81
47000							30x45	4.22	35x40	4.16	30x45	5.53
56000									35x45	5.00	30x50	6.00
68000											35x50	6.40

Cap (μF)	WV ϕD	25					35						
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$		
2700							20x25	1.29					
3300							20x30	1.57					
3900							20x30	1.78	22x25	1.78			
4700	20x25	1.65					20x35	2.02	22x30	2.02			
5600	20x30	1.85	22x25	1.85			20x40	2.13	22x35	2.13	25x25	2.13	
6800	20x35	2.11	22x30	2.11					22x40	2.41	25x30	2.41	
8200	20x40	2.34	22x30	2.34	25x25	2.34			22x45	2.85	25x35	2.85	
10000			22x35	2.65	25x30	2.65			22x50	3.05	25x40	3.05	
12000			22x40	2.81	25x30	2.81	30x25	2.81			25x45	3.37	
15000			22x45	3.13	25x35	3.13	30x30	3.13			25x50	3.72	
18000					25x40	3.56	30x30	3.56			30x45	4.37	
22000					25x50	4.04	30x35	4.04	35x30	4.04	30x50	4.92	
27000							30x40	4.74	35x35	4.74		35x50	5.30
33000							30x50	5.50	35x40	5.50			
39000									35x45	5.80			
47000									35x50	6.30			

Cap (μF)	WV ϕD	50					63						
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$		
1200							20x25	1.20					
1500							20x30	1.47	22x25	1.47			
1800	20x25	1.39					20x35	1.58	22x30	1.58			
2200	20x30	1.60	22x25	1.60			20x40	1.82	22x35	1.82	25x25	1.82	
2700	20x35	1.73	22x30	1.73	25x25	1.73			22x35	2.11	25x30	2.11	
3300	20x40	1.97	22x35	1.97	25x30	1.97			22x45	2.33	25x35	2.33	
3900			22x40	2.22	25x30	2.22			22x50	2.55	25x40	2.55	
4700			22x45	2.43	25x35	2.43	30x25	2.43			25x45	2.97	
5600			22x50	2.75	25x40	2.75	30x30	2.75			25x50	3.22	
6800					25x45	3.30	30x35	3.30			30x40	3.65	
8200					25x50	3.60	30x40	3.60	35x30	3.60	30x50	4.04	
10000							30x45	4.05	35x35	4.05		35x45	4.48
12000							30x50	4.56	35x40	4.56		35x50	4.75
15000									35x50	4.77			

Cap (μF)	WV ϕD	80					100						
		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$		
560							20x25	0.95					
680							20x30	1.15	22x25	1.15			
820	20x25	1.04					20x35	1.32	22x30	1.32			
1000	20x30	1.24	22x25	1.24			20x40	1.47	22x30	1.47	25x25	1.47	
1200	20x35	1.44	22x30	1.44					22x35	1.69	25x30	1.69	
1500	20x35	1.59	22x30	1.59	25x25	1.59			22x40	1.98	25x35	1.98	
1800	20x40	1.79	22x35	1.79	25x30	1.79			22x45	2.23	25x35	2.23	
2200			22x40	2.03	25x30	2.03	30x25	2.03			25x45	2.55	
2700			22x45	2.39	25x35	2.39	30x30	2.39			25x50	2.89	
3300					25x40	2.64	30x35	2.64			30x45	3.30	
3900					25x50	2.97	30x35	2.97	35x30	2.97	30x50	3.67	
4700							30x40	3.38	35x35	3.38		35x45	3.80
5600							30x45	3.80	35x40	3.80		35x50	4.05
6800									35x45	4.10			
8200									35x50	4.30			

↑ Ripple Current (A r.m.s./120Hz, 105°C)
 ↑ Case Size $\phi D \times L$ (mm)



◆ STANDARD SIZE, RATED RIPPLE CURRENT

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							
270	20x25	1.10					20x25	0.93										
330	20x30	1.20	22x25	1.21			20x30	1.20	22x25	1.20								
390	20x30	1.24	22x25	1.30			20x35	1.30	22x30	1.35								
470	20x35	1.42	22x30	1.41			20x40	1.40	22x35	1.42	25x25	1.38						
560	20x40	1.57	22x35	1.54	25x25	1.51	20x45	1.55	22x40	1.60	25x30	1.55						
680	20x45	1.70	22x40	1.74	25x30	1.74	30x25	1.74			30x25	1.55						
820			22x45	2.00	25x35	2.00	30x30	2.00			30x30	2.00	35x25	2.00				
1000			22x50	2.25	25x40	2.25	30x30	2.25	35x25	2.25			25x45	2.25	30x35	2.25	35x30	2.26
1200					25x45	2.49	30x35	2.49	35x30	2.45			25x50	2.54	30x40	2.52	35x30	2.60
1500							30x40	2.84	35x30	2.68					30x45	2.90	35x35	2.95
1800							30x45	3.32	35x35	3.00					30x50	3.00	35x40	3.30
2200									35x45	3.50							35x50	3.65
2700									35x50	4.00								

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					
180							20x25	0.86								
220	20x25	1.00					20x30	1.04	22x25	0.99						
270	20x30	1.10	22x25	1.10			20x30	1.08	22x25	1.04						
330	20x30	1.15	22x30	1.25			20x35	1.30	22x30	1.32	25x25	1.26				
390	20x35	1.25	22x30	1.31	25x25	1.31	20x40	1.45	22x35	1.42	25x30	1.45				
470	20x40	1.42	22x35	1.45	25x30	1.45	20x45	1.63	22x40	1.67	25x30	1.54	30x25	1.48		
560			22x40	1.60	25x30	1.60	30x25	1.60			22x45	1.77	25x35	1.66	30x30	1.65
680			22x45	1.75	25x35	1.78	30x30	1.78			25x40	1.87	30x30	1.82	35x25	1.78
820			22x50	1.95	25x40	1.95	30x30	2.00			25x45	2.04	30x35	2.00	35x30	1.93
1000					25x45	2.10	30x35	2.30	35x30	2.30			30x40	2.48	35x35	2.33
1200							30x40	2.64	35x35	2.65			30x45	2.88	35x40	2.65
1500							30x50	3.08	35x40	3.08					35x45	2.96
1800									35x45	3.48					35x50	3.39
2200									35x50	3.55						

Cap (μ F)	WV ϕ D	250					315									
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35					
82							20x25	0.64								
100							20x30	0.69	22x25	0.62						
120							20x30	0.75	22x25	0.75	25x25	0.76				
150							20x35	0.82	22x30	0.82	25x25	0.82				
180							20x40	0.90	22x35	0.92	25x25	0.90				
220	20x30	1.00	22x25	1.00			20x50	1.00	22x40	1.04	25x30	1.04	30x25	1.04		
270	20x35	1.10	22x30	1.15					22x45	1.16	25x35	1.15	30x25	1.15	35x25	1.15
330	20x40	1.20	22x35	1.28					22x50	1.22	25x40	1.23	30x30	1.33	35x25	1.32
390	20x45	1.35	22x40	1.49	25x30	1.35	30x25	1.49			25x45	1.40	30x35	1.47	35x30	1.47
470			22x45	1.60	25x35	1.57	30x30	1.65					30x40	1.70	35x30	1.70
560			22x50	1.72	25x40	1.80	30x30	1.80					30x45	2.05	35x35	1.90
680					25x45	1.85	30x35	2.00	35x30	2.00			30x50	2.14	35x40	2.17
820					25x50	2.10	30x40	2.18	35x35	2.30					35x45	2.20
1000							30x45	2.40	35x35	2.35						
1200									35x40	2.50						
1500									35x50	3.00						

Cap (μ F)	WV ϕ D	350					385											
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35							
56							20x25	0.42										
68	20x25	0.47					20x30	0.47	22x25	0.49								
82	20x30	0.55					20x30	0.52	22x25	0.55								
100	20x30	0.60	22x25	0.69			20x35	0.60	22x30	0.66	25x25	0.66						
120	20x35	0.70	22x30	0.75	25x25	0.75	20x40	0.68	22x35	0.71	25x25	0.71						
150	20x40	0.78	22x35	0.82	25x30	0.83			22x40	0.83	25x30	0.83	30x25	0.77				
180	20x45	0.88	22x40	0.92	25x30	0.92	30x25	0.92	22x45	0.92	25x35	0.92	30x30	0.89				
220			22x45	1.05	25x35	1.05	30x30	1.02			22x50	1.03	25x40	1.03	30x30	1.01	35x25	1.03
270			22x50	1.18	25x40	1.18	30x30	1.18	35x25	1.20			25x45	1.14	30x35	1.15	35x30	1.13
330					25x45	1.30	30x35	1.35	35x30	1.22					30x40	1.32	35x30	1.35
390					25x50	1.45	30x40	1.52	35x35	1.48					30x45	1.46	35x35	1.50
470							30x45	1.65	35x35	1.70					30x50	1.72	35x40	1.79
560							30x50	1.85	35x40	1.90							35x45	1.99
680									35x45	2.00								

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



◆ STANDARD SIZE, RATED RIPPLE CURRENT

Cap (μF)	WV		400					420										
	ϕD		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$	$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$						
47																		
56	20x25	0.51						20x25	0.44									
68	20x30	0.56	22x25	0.52				20x30	0.49	22x25	0.51							
82	20x30	0.64	22x25	0.64				20x35	0.54	22x30	0.65	25x25	0.65					
100	20x35	0.70	22x30	0.70	25x25	0.70		20x35	0.61	22x30	0.68	25x25	0.67					
120	20x40	0.75	22x35	0.75	25x25	0.75		20x40	0.70	22x35	0.73	25x30	0.76	30x25	0.81			
150	20x45	0.83	22x40	0.88	25x30	0.88	30x25	0.82		20x45	0.78	22x40	0.86	25x35	0.87	30x25	0.84	
180			22x45	0.98	25x35	0.98	30x30	0.95			22x45	0.96	25x35	0.95	30x30	0.97	35x25	0.91
220			22x50	1.10	25x40	1.10	30x30	1.10	35x25	1.10			25x40	1.08	30x35	1.14	35x30	1.07
270					25x45	1.21	30x35	1.22	35x30	1.22			25x50	1.38	30x35	1.20	35x35	1.29
330							30x40	1.44	35x30	1.44					30x40	1.37	35x35	1.44
390							30x45	1.55	35x35	1.60					30x45	1.50	35x40	1.63
470									35x40	1.90							35x45	1.88
560								35x45	2.12									

Cap (μF)	WV		450							
	ϕD		$\phi 20$	$\phi 22$	$\phi 25$	$\phi 30$	$\phi 35$			
47	20x25	0.39								
56	20x30	0.51	22x25	0.44						
68	20x35	0.56	22x30	0.53						
82	20x35	0.64	22x30	0.64	25x25	0.64				
100	20x45	0.69	22x35	0.69	25x30	0.69	30x25	0.69		
120	20x50	0.75	22x40	0.75	25x30	0.75	30x25	0.80		
150			22x45	0.88	25x35	0.88	30x30	0.88	35x25	0.75
180					25x40	0.95	30x30	1.00	35x30	0.86
220					25x45	1.10	30x35	1.12	35x30	1.05
270							30x40	1.28	35x35	1.27
330							30x50	1.45	35x40	1.45
390									35x40	1.65
470									35x50	1.85

Ripple Current (A r.m.s./120Hz, 105°C)
 Case Size $\phi D \times L$ (mm)