

**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(μA) $V$ =Rated Voltage(V) $C$ =Rated Capacitance(μF)																							
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>160~420~400</th> <th>420~450</th> </tr> </thead> <tbody> <tr> <td>tan δ</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> </tr> </tbody> </table> (20°C, 120Hz)		Rated Voltage (V)	10	16	25	35	50	63	80	100	160~420~400	420~450	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	160~420~400	420~450														
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> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>3</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td></td> <td></td> </tr> </tbody> </table> (120Hz)		Rated Voltage (V)	10~100	160~250	315~450	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																					
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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Leakage Current	Not more than the specified value.																							

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency coefficient

Frequency (Hz)		60 (50)	120	500	1k	10k≤
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**

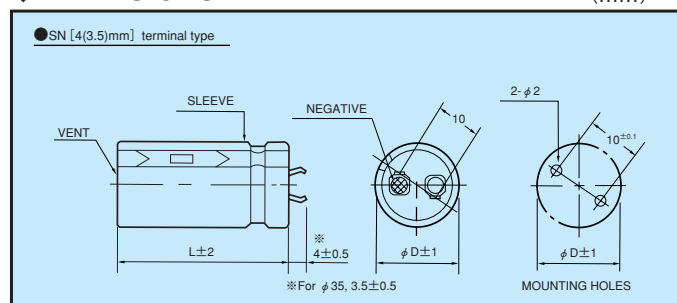
□□□	MXC	□□□□□	□	OOE	SN	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Terminal Code	Case Size

**◆Option**

	Code
without plate	OOE
with plate	Blank

**◆DIMENSIONS**

(mm)



**◆ STANDARD SIZE, RATED RIPPLE CURRENT**

Cap ( $\mu$ F)	wv $\phi$ D	10					16				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
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 ( $\mu$ F)	wv $\phi$ D	25				35					
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
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 ( $\mu$ F)	wv $\phi$ D	50				63					
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
1200							20×25; 1.20				
1500							20×30; 1.47	22×25; 1.47			
1800		20×25; 1.39					20×35; 1.58	22×30; 1.58			
2200		20×30; 1.60	22×25; 1.60				20×40; 1.82	22×35; 1.82	25×25; 1.82		
2700		20×35; 1.73	22×30; 1.73	25×25; 1.73				22×35; 2.11	25×30; 2.11		
3300		20×40; 1.97	22×35; 1.97	25×30; 1.97				22×45; 2.33	25×35; 2.33	30×25; 2.33	
3900			22×40; 2.22	25×30; 2.22				22×50; 2.55	25×40; 2.55	30×30; 2.55	
4700			22×45; 2.43	25×35; 2.43	30×25; 2.43				25×45; 2.97	30×35; 2.97	
5600			22×50; 2.75	25×40; 2.75	30×30; 2.75				25×50; 3.22	30×35; 3.22	35×30; 3.22
6800				25×45; 3.30	30×35; 3.30					30×40; 3.65	35×35; 3.65
8200				25×50; 3.60	30×40; 3.60	35×30; 3.60				30×50; 4.04	35×40; 4.04
10000					30×45; 4.05	35×35; 4.05					35×45; 4.48
12000					30×50; 4.56	35×40; 4.56					35×50; 4.75
15000						35×50; 4.77					

Cap ( $\mu$ F)	wv $\phi$ D	80				100					
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
560							20×25; 0.95				
680							20×30; 1.15	22×25; 1.15			
820		20×25; 1.04					20×35; 1.32	22×30; 1.32			
1000		20×30; 1.24	22×25; 1.24				20×35; 1.47	22×30; 1.47	25×25; 1.47		
1200		20×35; 1.44	22×30; 1.44				20×40; 1.69	22×35; 1.69	25×30; 1.69		
1500		20×35; 1.59	22×30; 1.59	25×25; 1.59				22×40; 1.98	25×35; 1.98	30×25; 1.98	
1800		20×40; 1.79	22×35; 1.79	25×30; 1.79				22×45; 2.23	25×35; 2.23	30×30; 2.23	
2200			22×40; 2.03	25×30; 2.03	30×25; 2.03				25×45; 2.55	30×35; 2.55	35×30; 2.55
2700			22×45; 2.39	25×35; 2.39	30×30; 2.39				25×50; 2.89	30×40; 2.89	35×30; 2.89
3300				25×40; 2.64	30×35; 2.64					30×45; 3.30	35×35; 3.30
3900				25×50; 2.97	30×35; 2.97	35×30; 2.97				30×50; 3.67	35×40; 3.67
4700					30×40; 3.38	35×35; 3.38					35×45; 3.80
5600					30×45; 3.80	35×40; 3.80					35×50; 4.05
6800						35×45; 4.10					
8200						35×50; 4.30					

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

**◆ STANDARD SIZE, RATED RIPPLE CURRENT**

Cap ( $\mu$ F)	wv $\phi$ D	160					180				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
270		20×25; 1.10					20×25; 0.93				
330		20×30; 1.20	22×25; 1.21				20×30; 1.20	22×25; 1.20			
390		20×30; 1.24	22×25; 1.30				20×35; 1.30	22×30; 1.35			
470		20×35; 1.42	22×30; 1.41				20×40; 1.40	22×35; 1.42	25×25; 1.38		
560		20×40; 1.57	22×35; 1.54	25×25; 1.51			20×45; 1.55	22×40; 1.60	25×30; 1.55		
680		20×45; 1.70	22×40; 1.74	25×30; 1.74	30×25; 1.74			22×45; 1.78	25×35; 1.78	30×25; 1.55	
820			22×45; 2.00	25×35; 2.00	30×30; 2.00			22×50; 2.00	25×40; 2.00	30×30; 2.00	35×25; 2.00
1000			22×50; 2.25	25×40; 2.25	30×30; 2.25	35×25; 2.25			25×45; 2.25	30×35; 2.25	35×30; 2.26
1200				25×45; 2.49	30×35; 2.49	35×30; 2.45			25×50; 2.54	30×40; 2.52	35×30; 2.60
1500					30×40; 2.84	35×30; 2.68				30×45; 2.90	35×35; 2.95
1800					30×45; 3.32	35×35; 3.00				30×50; 3.00	35×40; 3.30
2200						35×45; 3.50					35×50; 3.65
2700						35×50; 4.00					

Cap ( $\mu$ F)	wv $\phi$ D	200					220				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
180							20×25; 0.86				
220		20×25; 1.00					20×30; 1.04	22×25; 0.99			
270		20×30; 1.10	22×25; 1.10				20×30; 1.08	22×25; 1.04			
330		20×30; 1.15	22×30; 1.25				20×35; 1.30	22×30; 1.32	25×25; 1.26		
390		20×35; 1.25	22×30; 1.31	25×25; 1.31			20×40; 1.45	22×35; 1.42	25×30; 1.45		
470		20×40; 1.42	22×35; 1.45	25×30; 1.45			20×45; 1.63	22×40; 1.67	25×30; 1.54	30×25; 1.48	
560			22×40; 1.60	25×30; 1.60	30×25; 1.60			22×45; 1.77	25×35; 1.66	30×30; 1.65	
680			22×45; 1.75	25×35; 1.78	30×30; 1.78				25×40; 1.87	30×30; 1.82	35×25; 1.78
820			22×50; 1.95	25×40; 1.95	30×30; 2.00				25×45; 2.04	30×35; 2.00	35×30; 1.93
1000				25×45; 2.10	30×35; 2.30	35×30; 2.30				30×40; 2.48	35×35; 2.33
1200					30×40; 2.64	35×35; 2.65				30×45; 2.88	35×40; 2.65
1500					30×50; 3.08	35×40; 3.08					35×45; 2.96
1800						35×45; 3.48					35×50; 3.39
2200						35×50; 3.55					

Cap ( $\mu$ F)	wv $\phi$ D	250					315				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
82							20×25; 0.64				
100							20×30; 0.69	22×25; 0.62			
120							20×30; 0.75	22×25; 0.75	25×25; 0.76		
150							20×35; 0.82	22×30; 0.82	25×25; 0.82		
180							20×40; 0.90	22×35; 0.92	25×25; 0.90		
220		20×30; 1.00	22×25; 1.00				20×50; 1.00	22×40; 1.04	25×30; 1.04	30×25; 1.04	
270		20×35; 1.10	22×30; 1.15					22×45; 1.16	25×35; 1.15	30×25; 1.15	35×25; 1.15
330		20×40; 1.20	22×35; 1.28					22×50; 1.22	25×40; 1.23	30×30; 1.33	35×25; 1.32
390		20×45; 1.35	22×40; 1.49	25×30; 1.35	30×25; 1.49				25×45; 1.40	30×35; 1.47	35×30; 1.47
470			22×45; 1.60	25×35; 1.57	30×30; 1.65					30×40; 1.70	35×30; 1.70
560			22×50; 1.72	25×40; 1.80	30×30; 1.80					30×45; 2.05	35×35; 1.90
680				25×45; 1.85	30×35; 2.00	35×30; 2.00				30×50; 2.14	35×40; 2.17
820				25×50; 2.10	30×40; 2.18	35×35; 2.30					35×45; 2.20
1000					30×45; 2.40	35×35; 2.35					
1200						35×40; 2.50					
1500						35×50; 3.00					

Cap ( $\mu$ F)	wv $\phi$ D	350					385				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
56							20×25; 0.42				
68		20×25; 0.47					20×30; 0.47	22×25; 0.49			
82		20×30; 0.55					20×30; 0.52	22×25; 0.55			
100		20×30; 0.60	22×25; 0.69				20×35; 0.60	22×30; 0.66	25×25; 0.66		
120		20×35; 0.70	22×30; 0.75	25×25; 0.75			20×40; 0.68	22×35; 0.71	25×25; 0.71		
150		20×40; 0.78	22×35; 0.82	25×30; 0.83				22×40; 0.83	25×30; 0.83	30×25; 0.77	
180		20×45; 0.88	22×40; 0.92	25×30; 0.92	30×25; 0.92			22×45; 0.92	25×35; 0.92	30×30; 0.89	
220			22×45; 1.05	25×35; 1.05	30×30; 1.02			22×50; 1.03	25×40; 1.03	30×30; 1.01	35×25; 1.03
270			22×50; 1.18	25×40; 1.18	30×30; 1.18	35×25; 1.20			25×45; 1.14	30×35; 1.15	35×30; 1.13
330				25×45; 1.30	30×35; 1.35	35×30; 1.22				30×40; 1.32	35×30; 1.35
390				25×50; 1.45	30×40; 1.52	35×35; 1.48				30×45; 1.46	35×35; 1.50
470					30×45; 1.65	35×35; 1.70				30×50; 1.72	35×40; 1.79
560					30×50; 1.85	35×40; 1.90					35×45; 1.99
680						35×45; 2.00					

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

**◆ STANDARD SIZE, RATED RIPPLE CURRENT**

Cap ( $\mu$ F)	WV $\phi$ D	400					420				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35	$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
47											
56	20×25; 0.51						20×25; 0.44				
68	20×30; 0.56	22×25; 0.52					20×30; 0.49	22×25; 0.51			
82	20×30; 0.64	22×25; 0.64					20×35; 0.54	22×30; 0.65	25×25; 0.65		
100	20×35; 0.70	22×30; 0.70	25×25; 0.70				20×35; 0.61	22×30; 0.68	25×25; 0.67		
120	20×40; 0.75	22×35; 0.75	25×25; 0.75				20×40; 0.70	22×35; 0.73	25×30; 0.76	30×25; 0.81	
150	20×45; 0.83	22×40; 0.88	25×30; 0.88	30×25; 0.82			20×45; 0.78	22×40; 0.86	25×35; 0.87	30×25; 0.84	
180		22×45; 0.98	25×35; 0.98	30×30; 0.95				22×45; 0.96	25×35; 0.95	30×30; 0.97	35×25; 0.91
220		22×50; 1.10	25×40; 1.10	30×30; 1.10	35×25; 1.10				25×40; 1.08	30×35; 1.14	35×30; 1.07
270			25×45; 1.21	30×35; 1.22	35×30; 1.22				25×50; 1.38	30×35; 1.20	35×35; 1.29
330				30×40; 1.44	35×30; 1.44					30×40; 1.37	35×35; 1.44
390				30×45; 1.55	35×35; 1.60					30×45; 1.50	35×40; 1.63
470					35×40; 1.90						35×45; 1.88
560					35×45; 2.12						

Cap ( $\mu$ F)	WV $\phi$ D	450				
		$\phi$ 20	$\phi$ 22	$\phi$ 25	$\phi$ 30	$\phi$ 35
47	20×25; 0.39					
56	20×30; 0.51	22×25; 0.44				
68	20×35; 0.56	22×30; 0.53				
82	20×35; 0.64	22×30; 0.64	25×25; 0.64			
100	20×45; 0.69	22×35; 0.69	25×30; 0.69	30×25; 0.69		
120	20×50; 0.75	22×40; 0.75	25×30; 0.75	30×25; 0.80		
150		22×45; 0.88	25×35; 0.88	30×30; 0.88	35×25; 0.75	
180			25×40; 0.95	30×30; 1.00	35×30; 0.86	
220			25×45; 1.10	30×35; 1.12	35×30; 1.05	
270				30×40; 1.28	35×35; 1.27	
330				30×50; 1.45	35×40; 1.45	
390					35×40; 1.65	
470					35×50; 1.85	

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