

**MXK** SERIES

**UPGRADE**

**105°C Ultra Miniaturized**

• Load Life : 105°C 3000 hours.

RoHS compliance



**◆SPECIFICATIONS**

Items	Characteristics								
Category Temperature Range	-25~+105°C								
Rated Voltage Range	400~500Vdc								
Capacitance Tolerance	±20% (20°C, 120Hz)								
Leakage Current(MAX)	$I = 3\sqrt{CV}$ or 5mA whichever is smaller (After 5 minutes application of rated voltage) $I = \text{Leakage Current}(\mu A)$ $C = \text{Capacitance}(\mu F)$ $V = \text{Rated Voltage}(Vdc)$								
Dissipation Factor(MAX)	<table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400~450</td> <td>475, 500</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.20</td> <td>0.25</td> <td></td> </tr> </table>	Rated Voltage (Vdc)	400~450	475, 500	(20°C, 120Hz)	tanδ	0.20	0.25	
Rated Voltage (Vdc)	400~450	475, 500	(20°C, 120Hz)						
tanδ	0.20	0.25							
Endurance	<p>After applying rated voltage with rated ripple current for 3000 hours at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <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> </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.		
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.								
Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400~450</td> <td>475, 500</td> <td>(120Hz)</td> </tr> <tr> <td><math>Z(-25°C) / Z(20°C)</math></td> <td>8</td> <td>12</td> <td></td> </tr> </table>	Rated Voltage (Vdc)	400~450	475, 500	(120Hz)	$Z(-25°C) / Z(20°C)$	8	12	
Rated Voltage (Vdc)	400~450	475, 500	(120Hz)						
$Z(-25°C) / Z(20°C)$	8	12							

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency (Hz)	60(50)	120(100)	300	500	1k	10k≤
Coefficient	0.80	1.00	1.15	1.20	1.25	1.40

**◆OPTION**

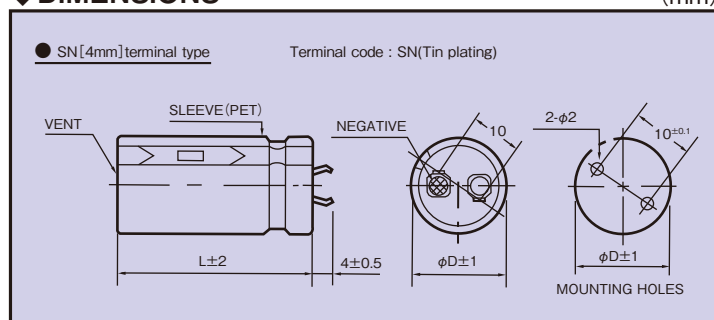
	Code
PET Sleeve without plate	EFC

**◆PART NUMBER**

□□□
MXK
□□□□□
M
□□□
SN
DXL  
 Rated Voltage      Series      Capacitance      Capacitance Tolerance      Option      Terminal Code      Case Size

**◆DIMENSIONS**

(mm)



**◆ STANDARD SIZE**

V <sub>dc</sub> Cap(μF) / φD	400								420							
	φ22		φ25		φ30		φ35		φ22		φ25		φ30		φ35	
120									22×25	0.95						
150	22×25	1.03							22×25	1.02						
									22×30	1.10						
180	22×30	1.19	25×25	1.15					22×30	1.20	25×25	1.16				
	22×30	1.26	25×25	1.20					22×35	1.38	25×30	1.35				
	22×35	1.37	25×30	1.32												
270	22×35	1.44	25×30	1.43	30×25	1.37			22×40	1.57	25×35	1.55	30×25	1.36		
	22×40	1.56														
330	22×45	1.77	25×35	1.65	30×25	1.39			22×45	1.72	25×35	1.61	30×30	1.59	35×25	1.45
					30×30	1.56			22×50	1.85	25×40	1.76				
390	22×50	1.97	25×40	1.85	30×30	1.65	35×25	1.48	22×55	2.00	25×40	1.80	30×30	1.61	35×25	1.45
											25×45	1.96	30×35	1.82	35×30	1.66
470	22×55	2.11	25×45	2.07	30×35	1.89	35×30	1.69	22×60	2.19	25×50	2.18	30×35	1.85	35×30	1.72
	22×60	2.20											30×40	2.04		
560			25×55	2.32	30×40	2.12	35×30	1.75			25×55	2.32	30×40	2.07	35×35	1.97
											25×60	2.43	30×45	2.27		
680			25×60	2.56	30×45	2.35	35×35	2.00					30×45	2.29	35×40	2.22
													30×50	2.50		
820					30×50	2.53	35×40	2.21					30×55	2.68	35×45	2.45
					30×55	2.66	35×45	2.48					30×60	2.79		
1000					30×60	2.91	35×50	2.70							35×50	2.64
															35×55	2.76
1200							35×55	2.85							35×60	3.03
							35×60	2.99								

V <sub>dc</sub> Cap(μF) / φD	450								475							
	φ22		φ25		φ30		φ35		φ22		φ25		φ30		φ35	
82									22×25	0.79						
100									22×30	0.90	25×25	0.90				
120	22×25	0.95							22×30	0.97	25×30	1.02				
150	22×30	1.12	25×25	1.08					22×35	1.13	25×30	1.12	30×25	1.11		
	22×30	1.17	25×25	1.14					22×40	1.27	25×35	1.27	30×30	1.27		
	22×35	1.27	25×30	1.24												
220	22×35	1.34	25×30	1.34	30×25	1.29			22×45	1.44	25×40	1.44	30×30	1.37	35×25	1.27
	22×40	1.45														
270	22×40	1.53	25×35	1.54	30×25	1.34			22×55	1.68	25×45	1.63	30×35	1.56	35×30	1.51
	22×45	1.65			30×30	1.49										
330	22×50	1.81	25×40	1.72	30×30	1.58	35×25	1.42			25×50	1.83	30×40	1.77	35×30	1.57
	22×55	1.88	25×45	1.85												
390	22×55	1.98	25×45	1.91	30×35	1.80	35×30	1.68			25×60	2.08	30×40	1.85	35×35	1.79
	22×60	2.07	25×50	2.04												
470			25×55	2.21	30×40	2.02	35×30	1.69					30×50	2.17	35×40	2.00
							35×35	1.92								
560			25×60	2.41	30×45	2.24	35×35	1.92					30×55	2.38	35×45	2.22
							35×40	2.15								
680					30×50	2.41	35×40	2.16							35×50	2.45
					30×55	2.54	35×45	2.38								
820					30×60	2.77	35×45	2.36							35×60	2.80
							35×50	2.59								
1000							35×55	2.78								
							35×60	2.90								

V <sub>dc</sub> Cap(μF) / φD	500							
	φ22		φ25		φ30		φ35	
68	22×25	0.73						
82	22×30	0.83						
100	22×30	0.91						
120	22×35	1.03	25×30	1.03				
150	22×40	1.18	25×30	1.12				
180	22×45	1.33	25×35	1.28	30×30	1.28	35×25	1.20
220	22×50	1.50	25×40	1.45	30×30	1.36	35×30	1.42
270	22×60	1.73	25×50	1.70	30×35	1.56	35×30	1.50
330			25×55	1.90	30×40	1.76	35×35	1.71
390					30×45	1.95	35×40	1.91
470					30×55	2.26	35×45	2.13
560					30×60	2.47	35×50	2.33
680							35×55	2.56

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