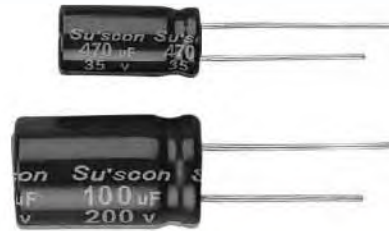


MF series

- Low IMP, high reliability, long life.
- Suitable for switching regulator of computer, etc.
- RoHS Compliance.
- 低阻抗、高信賴度、長壽命。
- 適用於電腦類產品的開關調節器。



SPECIFICATIONS

Items 項目	Characteristics 特性								
Capacitance Tolerance 靜電容量誤差	±20% (120Hz, 20°C)								
Operating Temperature Range 適用溫度範圍	-55 ~ +105°C		-40 ~ +105°C			-25 ~ +105°C			
Rated Voltage Range 工作電壓範圍	6.3 ~ 100V		160 ~ 400V			450V			
Leakage Current 洩漏電流	I ≤ 0.01CV or 3μA (After 2 minutes application of DC working voltage, at 20°C)								
Dissipation Factor 散逸因素 (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C								
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100
	tan δ (Max)	0.20	0.17	0.16	0.14	0.12	0.10	0.08	0.08
When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (20°C · 120Hz)									
Low Temperature Stability 低溫特性 Impedance Ratio (Max) 阻抗比率 (最大值)	Measurement Frequency: 120Hz								
	Rated Voltage (V)	6.3	10	16	25	35	50	63~100	
	Z (-25°C) / Z (20°C)	4	3	2	2	2	2	2	
	Z (-40°C) / Z (20°C)	-	-	-	-	-	3	3	
Z (-55°C) / Z (20°C)	8	6	4	3	3	3	-		
Load Life 負荷壽命	5000hours, with application of working voltage at 105°C (φD ≤ 6.3mm, 2000hrs; φD=8mm, 3000hrs)								
	Capacitance Change	Within ±20% of Initial Value							
	tan δ	200% or less of Initial Specified Value							
	Leakage Current	Initial Specified Value or less							
Shelf Life 放置壽命	1,000hours, no voltage applied, at 105°C. After Test : UR to be applied for 30 minutes, 24 to 48hours before measurement.								
	Capacitance Change	Within ±20% of Initial Value							
	tan δ	150% or less of Initial Specified Value							
	Leakage Current	Initial Specified Value or less							
Standards 參照標準	JIS C 5101-4-1 and JIS C 5101-2								

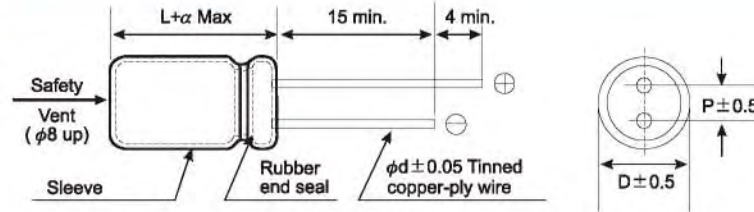
PERMISSIBLE RIPPLE CURRENT

Frequency Coefficient

WV (V)	Capacitance (μF)	Frequency (Hz)				
		50	120	1K	10K	100K
6.3 ~ 100	10 ~ 100	0.60	0.70	0.85	0.95	1.00
	220 ~ 1800	0.65	0.75	0.90	0.98	1.00
	2200 ~ 15000	0.75	0.80	1.00	1.00	1.00

MF series

DIMENSIONS (mm)



ϕD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ϕd	0.5	0.5	0.5	0.6	0.6	0.8	0.8

α	(L < 16) 1.0
	(L \geq 16) 2.0

STANDARD RATINGS

DxL (mm); R.C.: (mA rms) at 105°C, 100KHz; IMP: (Ω max) at 20°C, 100KHz.

Cap (μF)	WV(V) (Code)	6.3 (0J)			10 (1A)			16 (1C)			25 (1E)		
		Item	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.
33											5x11	145	0.920
47								5x11	180	0.650	6.3x11	210	0.600
100		5x11	140	0.920	5x11	180	0.650	5x11	230	0.550	6.3x11	370	0.350
220		6.3x11	275	0.300	6.3x11	340	0.300	8x12	580	0.280	8x12	640	0.230
330		6.3x11	320	0.300	8x12	580	0.280	8x12	640	0.230	10x13	865	0.080
470		8x12	580	0.280	8x12	640	0.230	8x16	840	0.150	10x16	1210	0.060
560		8x12	640	0.230	10x13	780	0.160	10x13	880	0.100	10x16	1320	0.055
680		8x12	720	0.140	10x13	820	0.110	10x16	1000	0.085	10x20	1380	0.052
820		8x16	840	0.087	8x16	865	0.080	10x16	1040	0.076	10x20	1400	0.046
1000		10x13	865	0.080	10x16	1040	0.076	10x16	1210	0.060	13x21	1900	0.035
1200		10x16	960	0.064	10x16	1210	0.060	10x25	1580	0.042	13x25	2058	0.032
1500		10x16	1210	0.060	10x20	1400	0.058	13x21	1870	0.035	13x25	2124	0.030
1800		10x20	1400	0.058	13x21	1580	0.042	10x25	1900	0.032	13x30	2340	0.028
2200		10x25	1450	0.046	10x25	1900	0.032	13x25	2124	0.030	13x35	2450	0.026
2700		13x21	1580	0.042	13x25	2124	0.030	13x30	2340	0.028	13x35	2743	0.024
3300		13x21	1870	0.035	13x30	2340	0.028	13x35	2450	0.026	16x32	3029	0.022
3900		13x21	1900	0.032	13x35	2450	0.026	16x26	2500	0.028	16x36	3124	0.020
4700		13x25	2124	0.030	16x26	2500	0.028	16x32	3029	0.022	18x35	3638	0.019
5600		13x30	2524	0.026	16x26	2552	0.026	16x36	3124	0.020	18x40	3781	0.016
6800		16x26	2760	0.028	16x32	3029	0.022	16x40	3586	0.019			
8200		16x32	3029	0.022	16x32	3600	0.020	18x35	3750	0.018			
10000		16x36	3124	0.020	18x35	3638	0.019						
12000		18x32	3600	0.020									
15000		18x35	3781	0.018									

Cap (μF)	WV(V) (Code)	35 (1V)			50 (1H)			63 (1J)			100 (2A)		
		Item	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.
10					5x11	120	1.400	5x11	125	1.650	6.3x11	130	1.250
22		5x11	150	0.920	5x11	160	1.200	6.3x11	240	0.780	8x12	230	0.850
33		5x11	220	0.430	6.3x11	230	0.300	8x12	270	0.650	10x13	330	0.690
47		6.3x11	280	0.300	6.3x11	295	0.300	8x12	300	0.504	10x13	370	0.450
100		8x12	450	0.200	10x13	760	0.120	10x16	610	0.160	10x25	560	0.300
220		10x13	760	0.100	10x16	1150	0.078	10x20	1100	0.080	13x25	880	0.096
330		10x16	1210	0.060	13x21	1660	0.055	13x21	1280	0.076	16x26	1440	0.058
470		10x20	1400	0.058	13x25	1950	0.046	13x25	1710	0.065	18x32	1690	0.038
560		13x21	1660	0.055	13x25	2124	0.034	16x26	1820	0.058	18x35	2020	0.036
680		13x21	1900	0.035	13x30	2310	0.030	16x26	1850	0.055	18x35	2100	0.032
820		13x25	2124	0.030	13x35	2510	0.025	16x32	2250	0.043			
1000		13x25	2340	0.028	13x35	2920	0.022	16x36	2450	0.036			
1200		13x30	2524	0.026	16x32	3010	0.022	18x32	2580	0.031			
1500		16x26	2600	0.026	16x36	3150	0.020						
1800		16x26	2850	0.025	18x32	3635	0.020						
2200		16x32	3029	0.022	18x35	3680	0.017						
2700		18x32	3600	0.020									
3300		18x40	3781	0.015									

※ 13mm may be replaced by 12.5mm upon customer's request.