

# MXM : MTM Series

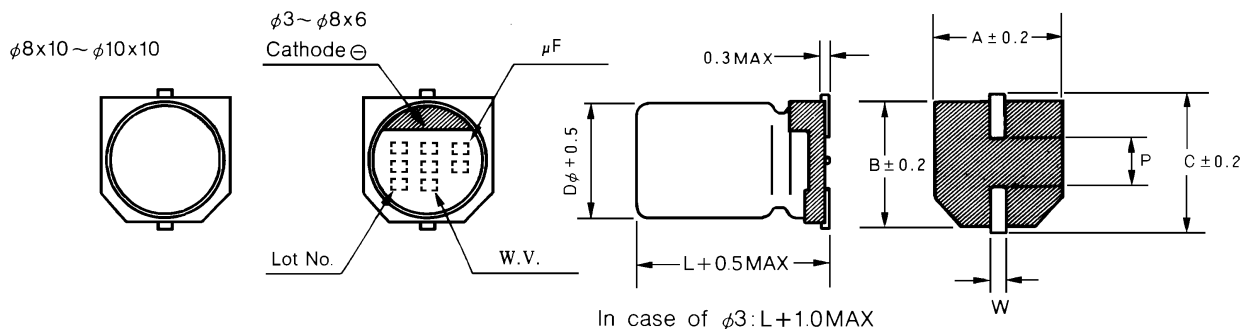


## Features

- \* Carrier tape packing for automatic insertion
- \* Especially suitable for dual surface, high density boards
- \* Solvent Proof

Item	Performance Characteristics								
	MXM				MTM				
Operating Temperature Range	-40°C to +85°C				-40°C to +105°C				
Working Voltage Range	4 to 50 Volts D.C.								
Nominal Capacitance Range	0.1 to 820 uF				0.1 to 470 uF				
Capacitance Tolerance	+/- 20 % ( 120 Hz, 20°C )								
Leakage Current (+20°C)	I <= 0.01 CV or 3 uA, whichever is greater after 2 Minutes of applied voltage								
Dissipation Factor % (120 Hz, +20°C)	Less than the value below:								
	WVDC	4	6.3	10	16	25	35	50	120 Hz 20°C
Temperature Characteristic	tan δ (Max)	0.35	0.26	0.2	0.16	0.14	0.12	0.12	
	Impedance Ratio								
	WVDC	4	6.3	10	16	25	35	50	120 Hz
	Z(-25°C) / Z(+20°C)	7	4	3	2	2	2	2	
	Z(-40°C) / Z(+20°C)	15	8	6	4	4	3	3	
Load Life	<u>Test conditions</u>								
	Duration:	2000 Hrs			2000 Hrs				
	Ambient temperature:	+85°C			+105°C				
	Applied voltage:	Rated working voltage			Rated working voltage				
Ripple Current:	Maximum rated Ir.			Maximum rated Ir.					
<u>After testing--Measure at 20°C</u>									
Capacitance change:	<= +/- 30% of initial value (WV=4), +/- 20 % (WV>=6.3)								
Dissipation factor:	<= 200% of initial specified value								
Leakage current:	<= The initial specified value								
Shelf Life	<u>Test Conditions</u>								
	Duration time:	1000 Hrs			1000 Hrs				
	Ambient temperature:	+85°C			+105°C				
	Applied voltage:	To JIS C-5102 4-3			To JIS C-5102 4-3				
<u>After testing--Measure at 20°C</u>									
Same limits as for load life.									
Resistance to Soldering Heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removal and cooling to room temperature, they shall meet the characteristics below								
	Capacitance change:	Within +/- 10% of Initial Value							
	Dissipation factor:	Initial specified value or less							
	Leakage current:	Initial specified value or less							
Marking	Dia. 3~8x6: Black Print on the Case Top. Dia. 8x10~Dia.10: Black Print on Clear Sleeve								
Applicable Standards	Characteristics of W of JIS C-5141								

## Physical Dimensions and Mounting Details



Case Size	3 x 5	4 x 5	5 x 5	6.3 x 5	8 x 6	8 x 10	10 x 10
A	3.3	4.3	5.3	6.6	8.3	8.3	10.3
B	3.3	4.3	5.3	6.6	8.3	8.3	10.3
C	3.6	5.0	6.0	7.3	9.0	9.0	11.0
P	0.6	1.0	1.5	2.2	2.2	3.2	4.6
Taping Code	TC3	TC4	TC5	TC6	TC7	TC8	TC0
W	0.45~ 0.75	0.5 ~ 0.8				0.7 ~ 1.0	

# MXM Series



Ir (mA) specified at 85°C and 120 KHz

**MXM Standard Products Table 4 to 16 Volt**

uF	4 V		6.3 V		10 V		16 V	
	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)
10							3 x 5	20
10							4 x 5	28
22	3 x 5	19	4 x 5	29			5 x 5	39
33	4 x 5	26			5 x 5	43		
47	4 x 5	34	5 x 5	46			6.3 x 5	70
100	5 x 5	61	6.3 x 5	71			8 x 6	200
220	6.3 x 5	82			8 x 6	250		
330			8 x 6	300	8 x 10	330		
470			8 x 10	380	10 x 10	400		
680			10 x 10	550				
820			10 x 10	660				

Ir (mA) specified at 85°C and 120 KHz

**MXM Standard Products Table 4 to 50 Volt**

uF	25 V		35 V		50 V		50 V	
	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)
0.1					4 x 5	1	3 x 5	1
0.22					4 x 5	2	3 x 5	2
0.33					4 x 5	3	3 x 5	3
0.47					4 x 5	5	3 x 5	5
1					4 x 5	10	3 x 5	8
2.2	3 x 5	8			4 x 5	16		
3.3	3 x 5	10			4 x 5	16		
4.7	3 x 5	12	4 x 5	22	5 x 5	23		
4.7	4 x 5	22						
10			5 x 5	30	6.3 x 5	35		
22			6.3 x 5	60	8 x 6	120		
33	6.3 x 5	65	8 x 6	130	8 x 10	120		
47			8 x 6	165	10 x 10	130		
100	8 x 10	180	10 x 10	210				
220	10 x 10	310						

# MTM Series



Ir (mA) specified at 105°C and 120 KHz

**MTM Standard Products Table 4 to 16 Volt**

uF	4 V		6.3 V		10 V		16 V	
	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)
10							4 x 5	28
22			4 x 5	29			5 x 5	39
33	4 x 5	26	4 x 5	26				
47	4 x 5	26	5 x 5	46			6.3 x 5	70
100	5 x 5	61	6.3 x 5	71	8 x 6	110		
220	6.3 x 5	82			8 x 10	160	10 x 10	210
330			8 x 10	230			10 x 10	230
470					10 x 10	270		

**MTM Standard Products Table 4 to 50 Volt**

uF	25 V		35 V		50 V	
	Dia x L	Ir(mA)	Dia x L	Ir(mA)	Dia x L	Ir(mA)
0.1					4 x 5	1
0.22					4 x 5	2
0.33					4 x 5	3
0.47					4 x 5	5
1					4 x 5	10
2.2					4 x 5	16
3.3					4 x 5	18
4.7	4 x 5	21			5 x 5	22
10	5 x 5	28			6.3 x 5	35
22	6.3 x 5	55			8 x 6	70
33	6.3 x 5	65	8 x 6	84	8 x 10	91
47	8 x 6	91	8 x 10	98	10 x 10	110
100	8 x 10	130	10 x 10	160		