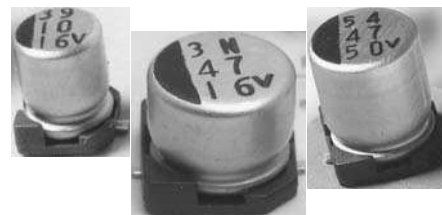


### FEATURES

- Cylindrical leadless type for surface mounting.
- Wide temperature -55°C ~ +105°C with economical pricing.
- Wide CV range.
- Solvent resistant (2 minutes).
- Designed for automatic mounting and reflow soldering.



### PART NUMBERING

Part Number Example: MXW-016/100M4X5TR13F									
MXW	-	016	/	100	M	4X5	TR	13	F
Type		Rated DC Voltage		Capacitance Code (μF)*	Tolerance Code	Size	Package Code**	Reel Size	RoHs Compliant
* Capacitance Code: First two digits represent significant figure, third digit represents multiplier (number of zeros).									
** Package Code: TR = Tape & Reel.									

### SPECIFICATIONS

Performance Characteristics									
Operating Temperature Range	-55°C ~ +105°C @ 6.3VDC ~ 63VDC. -40°C ~ +105°C @ 100VDC.								
Temperature Characteristics (120Hz)	Impedance Ratio								
	Rated Voltage (WVDC)	6.3	10	16	25	35	50	63	100
	Z (-40°C) / Z (+20°C)	3	3	2	2	2	2	2	3
	Z (-55°C) / Z (+20°C)	8	5	4	3	3	3	3	
Voltage Range	6.3VDC ~ 100VDC.								
Surge Voltage (20°C, 120Hz)	VDC	8.0	13	20	32	44	63	82	130
Capacitance Range	0.1μF ~ 6800μF.								
Capacitance Tolerance	±10% & ±20%.								
Maximum Dissipation Factor (20°C, 120Hz)	Rated Voltage (WVDC)	6.3	10	16	25	35	50	63	100
	DF %	24	20	16	14	12	10	12	10
Maximum Leakage Current (20°C) (after 2 minutes)	0.01CV or 3μA, whichever is greater.								
Load Life Test (105°C, 2000 hours for D ≥ 6.3mm) (105°C, 1000 hours for D < 6.3mm)	Capacitance Change	Within ±25% of initial measured value.							
	DF	Less than 200% of specified value.							
	Leakage Current	Less than specified value.							

### STANDARD PRODUCT TABLE (dØ X L(mm))

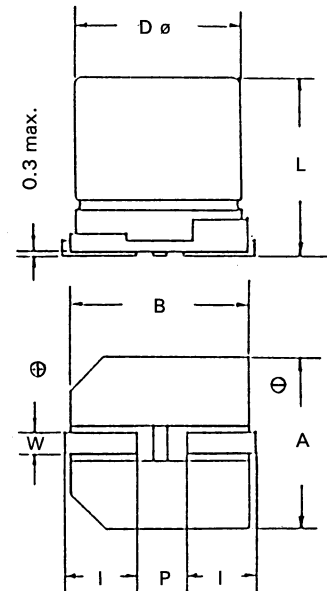
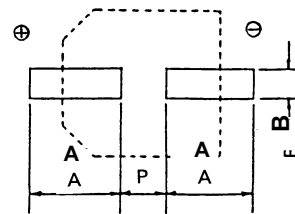
Cap. (μF)	WVDC							
	6.3	10	16	25	35	50	63	100
0.10						4 x 5.5		
0.22						4 x 5.5		
0.33						4 x 5.5		
0.47						4 x 5.5		
1.0						4 x 5.5	4 x 5.5	4 x 5.5
2.2						4 x 5.5	4 x 5.5	6.3 x 6.3
3.3						4 x 5.5	5 x 5.5	6.3 x 6.3
4.7				4 x 5.5	4 x 5.5	5 x 5.5	5 x 5.5	6.3 x 6.3
10			4 x 5.5	5 x 5.5	5 x 5.5	6.3 x 5.5	6.3 x 5.5	6.3 x 8
22	4 x 5.5	5 x 5.5	5 x 5.5	6.3 x 5.5	6.3 x 5.5	6.3 x 6.3	6.3 x 8	8 x 10.5
33	5 x 5.5	5 x 5.5	6.3 x 5.5	6.3 x 5.5	6.3 x 6.3	6.3 x 8	8 x 10.5	10 x 10.5
47	5 x 5.5	6.3 x 5.5	6.3 x 5.5	6.3 x 6.3	6.3 x 6.3	6.3 x 8	8 x 10.5	12.5 x 14
100	6.3 x 5.5	6.3 x 5.5	6.3 x 5.3	6.3 x 8	6.3 x 8	8 x 10.5		
150	6.3 x 5.5	6.3 x 6.3	6.3 x 8	8 x 10.5	8 x 10.5		12.5 x 14	16 x 16.5
220	6.3 x 6.3	6.3 x 8	6.3 x 8	8 x 10.5	8 x 10.5	10 x 10.5		
330	6.3 x 8	8 x 10.5	8 x 10.5	8 x 10.5	10 x 10.5	12.5 x 13.5		
470	8 x 10.5	8 x 10.5	8 x 10.5	10 x 10.5	12.5 x 14		16 x 16.5	
1000	8 x 10.5	10 x 10.5		12.5 x 14		16 x 16.5		
1500	10 x 10.5		12.5 x 14		16 x 16.5			
2200		12.5 x 14		16 x 16.5				
3300	12.5 x 14		16 x 16.5					
4700		16 x 16.5						
6800	16 x 16.5							

### DIMENSIONS (mm)

Case Size	dØ ± 0.5	L Max.	A ± 0.2	B ± 0.2	I ± 0.2	W	P ± 0.2
4 x 5.5	4.0	5.5	4.3	4.3	1.8	0.5 ~ 0.8	1.0
5 x 5.5	5.0	5.5	5.3	5.3	2.1	0.5 ~ 0.8	1.4
6.3 x 5.5	6.3	5.5	6.6	6.6	2.5	0.5 ~ 0.8	2.2
6.3 x 6.3	6.3	6.3	6.6	6.6	2.5	0.5 ~ 0.8	2.2
6.3 x 8	6.3	8.0	6.6	6.6	2.5	0.5 ~ 0.8	2.2
8 x 6.3	8.0	6.3	8.3	8.3	2.9	0.7 ~ 1.0	3.2
8 x 10.5	8.0	10.8	8.3	8.3	2.9	0.7 ~ 1.0	3.2
10 x 10.5	10.0	10.8	10.3	10.3	3.2	0.7 ~ 1.0	4.6
12.5 x 14	12.5	14	12.9	12.8	4.5	0.7 ~ 1.0	4.8
16 x 16.5	16	17	16.3	16.3	5	1.8 ~ 21	7

### RECOMMENDED LAND PATTERN (mm)

Case Size	A	B	P
4 x 5.5	2.5	1.6	1.0
5 x 5.5	2.7	1.6	1.4
6.3 x 5.5	3.1	1.6	2.2
6.3 x 6.3	3.1	1.6	2.2
6.3 x 8	3.1	1.6	2.2
8 x 6.2	4.15	1.9	2.8
8 x 10.8	4.15	1.9	2.8
10 x 10.8	4.3	1.9	4.3
12.5 x 14	5.6	2.1	4.3
16 x 16.5	6.6	6.5	5



### MAXIMUM RIPPLE (mA rms @ 120Hz & 105°C)

Cap. (µF)	VVDC							
	6.3	10	16	25	35	50	63	100
0.1						0.7		
0.22						1.6		
0.33						2.5		
0.47						3.5		
1.0						7.0	7	7
2.2						11	10	14
3.3						13	14	20
4.7				13	14	16	16	25
10			18	20	21	24	24	35
22	22	25	27	36	38	38	49	84
33	27	30	40	44	42	59	112	133
47	33	41	48	47	49	63	119	246
100	50	53	60	91	84	140		245
150	55	62	95	140	155			500
220	66	105	105	175	190	220		
330	105	195	195	220	410			
470	210	210	230	300	410	410	630	
1000	280			460		655		
1500	310		500		740			
2200		510		805				
3300	520		840					
4700		880						
6800	930							

### MAXIMUM ESR (Ω @ 120Hz & 20°C)

Cap. (µF)	VVDC							
	6.3	10	16	25	35	50	63	100
0.1						1660		
0.22						754		
0.33						503		
0.47						353		
1.0						166	108	94.0
2.2						75.4	41.0	87.0
3.3						50.3	36.1	72.3
4.7				49.4	42.3	35.3	27.9	50.8
10			26.5	23.2	19.9	16.6	12.5	23.9
22	18.1	15.1	12.1	10.6	9.05	7.64	6.24	10.9
33	12.6	10.1	8.04	7.04	6.04	5.03	4.4	7.2
47	8.47	7.06	5.65	4.95	4.24	3.53	2.7	4.3
100	3.98	3.32	2.66	2.32	2.32	1.99		1.8
150	2.66	2.21	1.77	1.77	1.55	1.33		0.90
220	1.81	1.51	1.21	1.21	1.06	0.9		
330	1.21	1.21	1.00	0.80	0.70	0.60		
470	0.99	0.85	0.71	0.56	0.49		0.51	
1000	0.46	0.40		0.26		0.24		
1500	0.31		0.22		0.18			
2200		0.18		0.16				
3300	0.14		0.15					
4700		0.14						
6800	0.10							

### RIPPLE CURRENT CORRECTION FACTOR

Frequency (Hz)	50µF < 100	100µF < 1K	1KµF < 10K	10KµF
Correction Factor	0.08	1.0	1.3	1.5

Temperature	40 - 85	105
Correction Factor	1.42	1.00