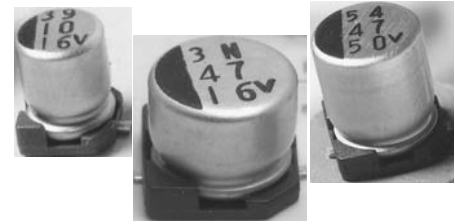


## FEATURES

- Cylindrical leadless type for surface mounting.
- Extra Long Life 5000Hrs
- Wide Temperature Range
- Designed for automatic mounting and reflow soldering.
- Wide Voltage range.
- Solvent resistant (2 minutes).



## PART NUMBERING

Part Number Example: MXLL-016/221M8X10TR13F

MXWH	-	016	/	220	M	5X6	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	-40°C ~ +105°C.									
Voltage Range	6.3VDC ~ 400VDC.									
Capacitance Range	0.1μF ~ 220μF.									
Capacitance Tolerance	±20%.									
Maximum Dissipation Factor (20°C, 120Hz)	6.3V	10V	16V	25V	35V	50V	160V	200V	400V	
	32%	24%	20%	16%	13%	12%	20%	20%	25%	
Max Leakage Current (μA)	0.01CV or 3μA, whichever is greater @ 20°C After 2 Minutes									
Temperature Characteristics (120Hz)	Impedance Ratio @ 120Hz									
	Z (-25°C) / Z (+20°C)	4	3	2	2	2	3	3	6	
	Z (-40°C) / Z (+20°C)	10	7	5	3	3	3	6	6	10
Load Life Test 105°C, 5000 hours Rated Voltage Applied	Cap Change	Within ±30% of initial measured value.								
	DF	Less than 300% of specific value.								
	Leakage Current	Less than specified value.								

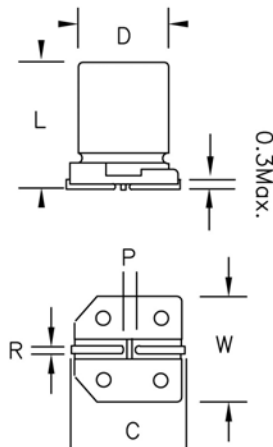
## STANDARD PRODUCT TABLE (dØ X L(mm))

Capacitance (μF)	WVDC								
	6.3	10	16	25	35	50	160	200	400
0.1						4X6			
0.22						4X6			
0.33						4X6			
0.47						4X6			
1						4X6			
2.2						4X6			8X10.5
3.3						4X6			10X10.5
4.7					4X6	5X6			10X10.5
10			4X6	5X6	5X6	6.3X6	10X10.5		12.5X13.5
22		5X6	5X6	6.3X6	6.3X6	6.3X7.7	12.5X13.5	12.5X13.5	16X16.5
33	5X6	5X6	6.3X6	6.3X6	6.3X7.7		12.5X13.5	12.5X13.5	
47	5X6	6.3X6	6.3X6	6.3X7.7			16X16.5	16X16.5	
68							16X16.5	16X16.5	
82							16X16.5		
100	6.3X6	6.3X7.7	6.3X7.7						
220	6.3X7.7								

### RATED RIPPLE CURRENT (120HZ 105°C)

Capacitance ( $\mu$ F)	WVDC								
	6.3	10	16	25	35	50	160	200	400
0.1						1			
0.22						2.6			
0.33						3.2			
0.47						3.8			
1						6.2			
2.2						11			25
3.3						14			36
4.7					15	19			38
10			18	25	25	30	43		57
22		30	30	42	42	49	112	112	115
33	35	35	48	48	57		137	137	
47	36	50	50	63			180	180	
68							215	215	
82							235		
100	60	81	81						
220	101								

### DIMENSIONS (mm)



SIZE D X L	D +0.5	L MAX	W $\pm$ 0.2	C $\pm$ 0.2	R	P $\pm$ 0.2
4 X 6	4	6.3	4.3	5	0.5 ~ 0.8	1.0
5 X 6	5	6.3	5.3	6	0.5 ~ 0.8	1.4
6.3 X 6	6.3	6.3	6.6	7	0.5 ~ 0.8	2.2
6.3 X 7.7	6.3	8	6.6	7	0.5 ~ 0.8	2.2
8 X 10.5	8	10.8	8.3	9	0.7 ~ 1.0	3.2
10 X 10.5	10	10.8	10.3	11	1.0 ~ 1.4	4.6
12.5 X 13.5	12.5	14	12.8	13.5	1.0 ~ 1.4	4.6
16 X 16.5	16	17	16.3	17.3	1.8 ~ 2.1	7.0