

# ALUMINUM ELECTROLYTIC CAPACITORS



## MZ Series

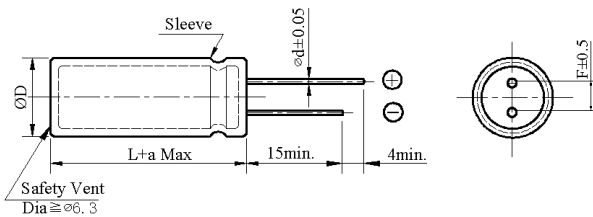
- Low ESR
- Load life 2,000 hours at 105°C
- Ideal for low profile power supply applications



### SPECIFICATIONS

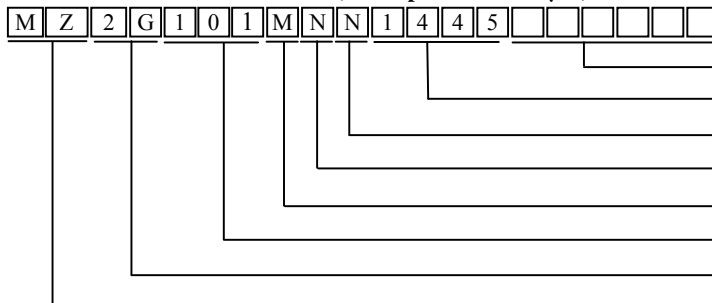
Item	Performance Characteristics			
Category Temperature Range	-40 ~ +105°C	-25 ~ +105°C		
Working Voltage Range	200 ~ 400Vdc	420 ~ 450Vdc		
Capacitance Range	27 ~ 270 µF	18 ~ 100 µF		
Capacitance Tolerance	±20% (at 25°C and 120Hz)			
Dissipation Factor (tanδ) (at 25°C, 120Hz)	Rated Voltage (V)	200 ~ 450		
	tanδ(Max)	0.15		
Leakage Current	$I = 0.03CV + 10\mu A$ I : Leakage current (µA) C : Rated capacitance (µF) V : Rated voltage (V) Impress the rated voltage for 2 minutes			
Low Temperature Characteristics Impedance Ratio(MAX)	Rated voltage (V)	200	400	420 ~ 450
	Z(-40°C)/Z(+20°C)	6	6	—
	Z(-25°C)/Z(+20°C)	3	5	6
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 105°C.			
	Capacitance change	≒ ±20% of the initial value		
	Dissipation factor(tanδ)	≒ 200% of the specified value		
	Leakage current	≒ specified value		
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.			
	Capacitance change	≒ ±20% of the initial value		
	Dissipation factor(tanδ)	≒ 200% of the specified value		
	Leakage current	≒ 200% of the specified value		
Others	Conforms to JIS-C-5101-4 (1998), characteristic W			

### DIMENSIONS (mm)



ΦD	10	12.5 L < 35	12.5 L ≥ 35	14.5
ΦD	ΦD + 0.5 Max			
Φd	0.6	0.6	0.8	0.8
F	5.0	5.0		7.5
a	L + 1.5 Max	≒ 35 L + 1.5 Max ≒ 40 L + 2.0 Max		L + 2.0 Max

### PART NUMBER SYSTEM( Example : 400V 100µF )





## MZ Series

◆ Case size & Permissible rated ripple current: (mA rms) at 105°C / 120Hz

uF \ Vdc	200		400		420		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
18							10×30	200
22					10×30	215	10×35	235
27			10×30	252	10×35	260	10×40	275
33			10×35	284	10×40	295	12.5×30	330
39			10×40	320	10×45	340	10×45	305
			12.5×30	315	12.5×30	330	12.5×30	295
47			10×50	355	10×55	375	12.5×35	350
			12.5×35	340	12.5×35	360	14.5×30	380
56			12.5×40	400	12.5×40	420	14.5×35	435
					14.5×30	410		
68			12.5×50	450	12.5×50	470	12.5×50	485
			14.5×35	430	14.5×35	455	14.5×40	470
82	10×35	440	14.5×40	505	14.5×40	540	14.5×50	560
100	10×40	480	14.5×45	550	14.5×50	600		
120	10×45	517						
	12.5×30	545						
150	12.5×35	614						
180	12.5×40	709						
220	14.5×35	785						
270	14.5×40	890						

◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Cap(uF)	Frequency (Hz)			
		120	1K	10K	100K
200 ~ 450	18 ~ 82	1.00	1.50	1.75	1.80
	100 ~ 270	1.00	1.30	1.40	1.50