

# Alchip™-MZD Series

- Endurance : 5,000 hours at 105°C
- Low impedance
- Rated voltage range : 6.3 to 50V
- Nominal capacitance range : 10 to 470μF
- Suitable for high reliability products
- RoHS Compliant

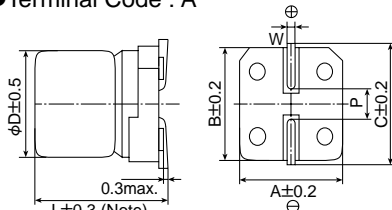


## ◆SPECIFICATIONS

Items	Characteristics						
Category Temperature Range	-25 to +105°C						
Rated Voltage Range	6.3 to 50V <sub>dc</sub>						
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)						
Leakage Current	I=0.01CV or 3μA, whichever is greater Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C, after 2 minutes)						
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V
	tanδ (Max.)	0.32	0.28	0.26	0.16	0.14	0.14
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage(V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V
	Z(-10°C)/Z(+20°C)	4	3	2	2	2	2
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C.						
	Capacitance change	≤±30% of the initial value					
	D.F. (tanδ)	≤300% of the initial specified value					
	Leakage current	≤The initial specified value					
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.						
	Capacitance change	≤±30% of the initial value					
	D.F. (tanδ)	≤300% of the initial specified value					
	Leakage current	≤The initial specified value					

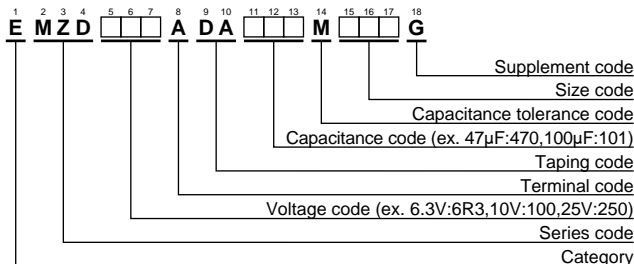
## ◆DIMENSIONS [mm]

●Terminal Code : A



Note : L±0.5 for HA0 and JA0

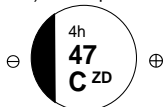
## ◆PART NUMBERING SYSTEM



Size code	D	L	A	B	C	W	P
E73	5	7.0	5.3	5.3	5.9	0.5 to 0.8	1.4
F73	6.3	7.0	6.6	6.6	7.2	0.5 to 0.8	1.9
F90	6.3	8.7	6.6	6.6	7.2	0.5 to 0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5

## ◆MARKING

EX) 16V47μF



●Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	6.3	10	16	25	35	50
Symbol	j	A	C	E	V	H

## ◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size code	Impedance (Ω <sub>max</sub> /20°C, 100kHz)	Rated ripple current (mA <sub>RMS</sub> /105°C, 100kHz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Size code	Impedance (Ω <sub>max</sub> /20°C, 100kHz)	Rated ripple current (mA <sub>RMS</sub> /105°C, 100kHz)	Part No.	
6.3	47	E73	2.2	95	EMZD6R3ADA470ME73G	25	47	F73	1.1	140	EMZD250ADA470MF73G	
	100	F73	1.1	140	EMZD6R3ADA101MF73G		100	F90	1.0	230	EMZD250ADA101MF90G	
	220	F90	1.0	230	EMZD6R3ADA221MF90G		220	HA0	0.22	600	EMZD250ADA221MHA0G	
	330	F90	1.0	230	EMZD6R3ADA331MF90G		330	HA0	0.22	600	EMZD250ADA331MHA0G	
	470	HA0	0.22	600	EMZD6R3ADA471MHA0G		470	JA0	0.16	850	EMZD250ADA471MJA0G	
10	33	E73	2.2	95	EMZD100ADA330ME73G	35	10	E73	2.2	95	EMZD350ADA100ME73G	
	150	F73	1.1	140	EMZD100ADA151MF73G		10	F73	1.1	140	EMZD350ADA100MF73G	
16	22	E73	2.2	95	EMZD160ADA220ME73G		22	E73	2.2	95	EMZD350ADA220ME73G	
	47	F73	1.1	140	EMZD160ADA470MF73G		22	F73	1.1	140	EMZD350ADA220MF73G	
	100	F73	1.1	140	EMZD160ADA101MF73G		33	F90	1.0	230	EMZD350ADA330MF90G	
	150	F90	1.0	230	EMZD160ADA151MF90G		47	F90	1.0	230	EMZD350ADA470MF90G	
	220	F90	1.0	230	EMZD160ADA221MF90G		220	HA0	0.22	600	EMZD350ADA221MHA0G	
	330	HA0	0.22	600	EMZD160ADA331MHA0G		330	JA0	0.16	850	EMZD350ADA331MJA0G	
25	470	HA0	0.22	600	EMZD160ADA471MHA0G		50	47	HA0	0.53	350	EMZD500ADA470MHA0G
	22	E73	2.2	95	EMZD250ADA220ME73G			100	HA0	0.53	350	EMZD500ADA101MHA0G
	33	F73	1.1	140	EMZD250ADA330MF73G	220		JA0	0.35	670	EMZD500ADA221MJA0G	

Specifications in this bulletin are subject to change without notice.