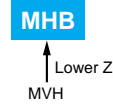


Upgrade!

Alchip™-MHB Series

- ESR : Less than MVH
- Endurance : 2,000 hours at 125°C
- Rated Voltage Range : 10 to 35V
- Nominal capacitance range : 47 to 470μF
- Solvent resistant type
- RoHS Compliant

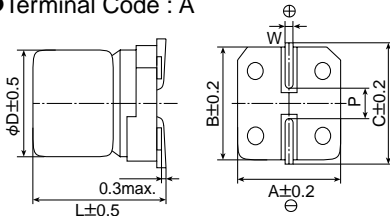


◆ **SPECIFICATIONS**

Items	Characteristics				
Category Temperature Range	-40 to +125°C				
Rated Voltage Range	10 to 35V _{dc}				
Capacitance Tolerance	±20%(M) (20°C, 120Hz)				
Leakage Current	I=0.01CV 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 _{dc})	10V	16V	25V	35V
	tanδ (Max.)	0.24	0.20	0.16	0.14
					(20°C, 120Hz)
Low Temperature Characteristics (Max. impedance Ratio)	Rated voltage(V _{dc})	10V	16V	25V	35V
	Z(-25°C)/Z(+20°C)	3	2	2	2
	Z(-40°C)/Z(+20°C)	4	3	3	3
					(120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 125°C.				
	Capacitance change	≤±30% of the initial value			
	D.F. (tanδ)	≤300% of the initial specified value			
	Leakage current	≤The initial specified value			
	ESR(-40°C, 400kHz)	HA0 : ≤6Ω JA0 : ≤4.5Ω			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°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			

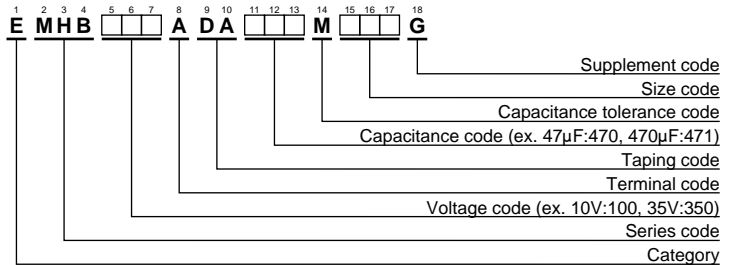
◆ **DIMENSIONS [mm]**

● Terminal Code : A



Size code	D	L	A	B	C	W	P
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

◆ **PART NUMBERING SYSTEM**



Please refer to "Product code guide (surface mount type)"

◆ **MARKING**

EX) 16V220μF



● **Rated voltage symbol**

Rated voltage (V _{dc})	Symbol
10	A
16	C
25	E
35	V

◆ **STANDARD RATINGS**

WV(V _{dc})	Cap(μF)	Size code	ESR (Ωmax/100k to 400kHz)		Rated ripple current (mA _{rms} /125°C, 100k to 400kHz)	Part No.
			20°C	-40°C		
10	330	HA0	0.3	3.0	240	EMHB100ADA331MHA0G
	470	JA0	0.2	2.0	330	EMHB100ADA471MJA0G
16	100	HA0	0.3	3.0	240	EMHB160ADA101MHA0G
	220	HA0	0.3	3.0	240	EMHB160ADA221MHA0G
25	100	HA0	0.3	3.0	240	EMHB250ADA101MHA0G
	220	HA0	0.3	3.0	240	EMHB250ADA221MHA0G
	330	JA0	0.2	2.0	330	EMHB250ADA331MJA0G
35	47	HA0	0.3	3.0	240	EMHB350ADA470MHA0G
	100	HA0	0.3	3.0	240	EMHB350ADA101MHA0G
	100	JA0	0.2	2.0	330	EMHB350ADA101MJA0G
	220	JA0	0.2	2.0	330	EMHB350ADA221MJA0G