



- OLow ESR
- Endurance: 3,000 hours at 105°C
- RoHS Compliant

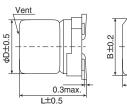


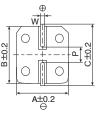


Items	Characteristics								
Category Temperature Range	-40 to +105℃								
Rated Voltage Range	400V <sub>dc</sub>								
Capacitance Tolerance	±20%(M) (at 20℃, 120Hz)								
Leakage Current	I=0.04CV+100(max.)								
	Where, I: Max. leakage	e, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 1 minute							
Dissipation Factor (tan $\delta$ )	Rated voltage(V <sub>dc</sub> )	400V							
	$tan \delta$ (Max.)	0.25		(at 20℃, 120Hz)					
Low Temperature	Rated voltage(V <sub>dc</sub> )	400V							
Characteristics	Z(-25°C)/Z(+20°C)	6							
(Max. impedance Ratio)	Z(-40°C)/Z(+20°C)	10		(at 120Hz)					
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 3,000 hours at 105℃.								
	Capacitance change	≦±	20% of the initial value						
	D.F. (tan δ )	≦20	0% of the initial specified value						
	Leakage current	≦Th	e initial specified value						
Shelf life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 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	≦±	20% of the initial value						
	D.F. (tan δ )	≦20	0% of the initial specified value						
	Leakage current	≦Th	e initial specified value						

#### **◆DIMENSIONS** [mm]

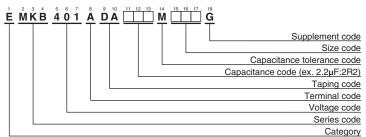
### ●Terminal Code : A





Size code	D	L	Α	В	С	W	Р
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





<ul> <li>Rated voltage symbol</li> </ul>						
loc	Symb	Rated voltage (Vdc)				
	2G	400				
	20	400				

### **STANDARD RATINGS**

wv	Cap	Size code		SR ./120Hz)	Rated ripple current	Part No.	
(V <sub>dc</sub> )	(μF)		20℃	-40℃	(mArms/105°C,120Hz)		
	2.2	HA0	20	1,000	26	EMKB401ADA2R2MHA0G	
400	3.3	JA0	10	500	37	EMKB401ADA3R3MJA0G	
400	3.9	JA0	10	500	38	EMKB401ADA3R9MJA0G	
	4.7	JA0	10	500	39	EMKB401ADA4R7MJA0G	

# **♦**RATED RIPPLE CURRENT MULTIPLIERS

## Frequency Multipliers

Frequency(Hz)	120	1k	10k	100k
400V <sub>dc</sub>	1.00	1.30	1.40	1.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.