

### SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

# Alchip™- MHK Series

- Endurance: 2,000 hours at 125°C
- Specified ESR after endurance
- For automobile modules and other high temperature applications
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

### MHK Lower ESR MHJ



#### **SPECIFICATIONS**

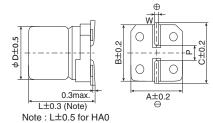
Items	Characteristics							
Category Temperature Range	-40 to +125℃							
Rated Voltage Range	35V <sub>dc</sub>							
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)							
Leakage Current	I=0.01CV							
	Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20℃ after 2 minu							
Dissipation Factor	Rated voltage(Vdc)	35V						
(tan δ)	tan δ (Max.)	0.14				(at 20℃, 120Hz)		
Low Temperature	Rated voltage(V <sub>dc</sub> )	35V						
Characteristics	Z(-25°C)/Z(+20°C)	2						
(Max. impedance Ratio)	Z(-40°C)/Z(+20°C)	3				(at 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℃.							
	Capacitance change	≦±3	30% of the init	tial value				
	D.F. (tan $\delta$ )	≦300	0% of the initi	al specified value				
	Leakage current	≦The initial specified value						
	F0D(0 / 40°C 400HI-)	F80		6.0				
	ESR(Ω max./-40°C, 400kHz)	HA0		4.5				
Shelf life	The following specifications	following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 125°C witho						
	voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C							
Capacitance change ≤±30% of the initial value								
	D.F. (tan $\delta$ )	≦300% of the initial specified value						
	Leakage current	≦The initial specified value						

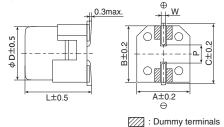
### **♦DIMENSIONS** [mm]

• Terminal Code : A

Terminal Code : G(Vibration resistant structure)

• Size code : F80 to HA0

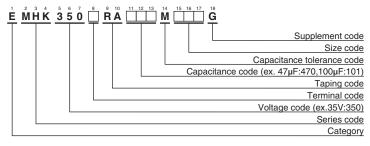




Size code : HA0

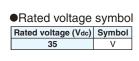
Size code	D	L	Α	В	С	W	Р
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1

### **◆PART NUMBERING SYSTEM**



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







# Alchip™-MHK Series

### **STANDARD RATINGS**

	WV (V <sub>dc</sub> )	Cap (μF)	Size code		SR lk to 400kHz)	Rated ripple current (mArms/125°C, 100k to 400kHz)	Part No.	
	(Vdc)			20℃	-40℃	(IIIAIIIIS/125 C, 100k to 400kH2)		
Г		47	F80	0.30	3.0	240	EMHK350ARA470MF80G	
	35	100	F80	0.30	3.0	240	EMHK350ARA101MF80G	
		220	HA0	0.20	2.0	330	EMHK350□RA221MHA0G	

### **◆RATED RIPPLE CURRENT MULTIPLIERS**

#### Frequency Multipliers

Capacitance(μF) Frequency(Hz)	120	1k	10k	100k
47 to 100	0.40	0.75	0.90	1.00
220	0.50	0.85	0.94	1.00

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

## **Mouser Electronics**

**Authorized Distributor** 

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### Chemi-Con:

EMHK350ARA221MHA0G EMHK350ARA101MF80G EMHK350ARA470MF80G