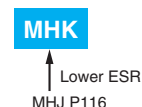


Alchip™-MHK ^{New!} Series

- ① ESR : Less than MHJ
- ② Endurance : 2,000 hours at 125°C
- ③ Specified ESR after endurance
- ④ For automobile modules and other high temperature applications
- ⑤ Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- ⑥ RoHS Compliant

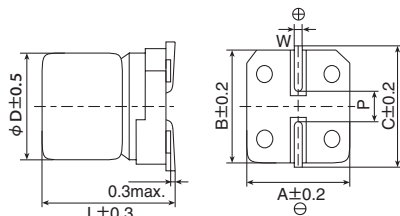


◆ SPECIFICATIONS

Items	Characteristics		
Category	Temperature Range		
Rated Voltage Range	-40 to +125°C		
Capacitance Tolerance	35V _{dc}		
Leakage Current	± 20%(M) (at 20°C, 120Hz)		
Dissipation Factor (tan δ)	I=0.01CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minute)		
Low Temperature Characteristics (Max. impedance Ratio)	Rated voltage(V _{dc})	35V	(at 20°C, 120Hz)
	tan δ (Max.)	0.14	
	Rated voltage(V _{dc})	35V	
	Z(-25°C)/Z(+20°C)	2	
	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°C.		
	Capacitance change	≤ ±30% of the initial value	
	D.F. (tan δ)	≤300% of the initial specified value	
	Leakage current	≤The initial specified value	
	ESR(Ω max./-40°C, 400kHz)	6.0	
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. (tan δ)	≤300% of the initial specified value	
	Leakage current	≤The initial specified value	

◆ DIMENSIONS [mm]

- Terminal Code : A
- Size code : F80



Size code	D	L	A	B	C	W	P
F80	6.3	7.7	6.6	6.6	7.2	0.5 to 0.8	1.9

◆PART NUMBERING SYSTEM

Diagram illustrating the pinout for a 19-pin connector. The pins are numbered 1 through 19. The letters E, M, H, K, 3, 5, 0, A, D, A, M, F, 8, 0, G are assigned to pins 1 through 15 respectively. Pins 11, 12, and 13 are grouped together in a box. The word 'Capacitance' is written near pins 14 through 19.

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

◆ MARKING

EX) 35V47 μ F



●Rated voltage symbol

Rated voltage (V _{dc})	Symbol
35	V

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size code	ESR (Ω max./100k to 400kHz)		Rated ripple current (mA _{rms} /125°C, 100k to 400kHz)	Part No.
			20°C	-40°C		
35	47	F80	0.30	3.0	240	EMHK350ADA470MF80G
	100	F80	0.30	3.0	240	EMHK350ADA101MF80G

◆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

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.