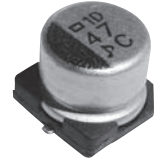


Alchip™-MAR Series



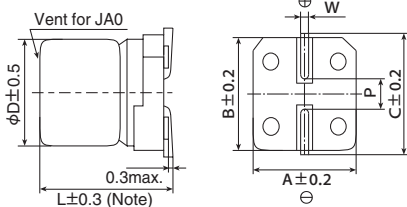
- Suitable for small and low profile product such as the car audio and electronics
- Non solvent resistant type
- RoHS2 Compliant

◆ SPECIFICATIONS

Items	Characteristics							
Category	-40 to +85°C							
Temperature Range	-40 to +85°C							
Rated Voltage Range	6.3 to 50V _{dc}							
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 (tan δ)	Rated voltage (V _{dc})	6.3V	10V	16V	25V	35V	50V	
	tan δ (Max.)	D55 to F55	0.30	0.24	0.20	0.16	0.14	0.12
		H63 to JA0	0.40	0.30	0.26	0.16	0.14	0.12
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	6.3V	10V	16V	25V	35V	50V	
	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	
	Z(-40°C)/Z(+20°C)	12	8	6	4	3	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 85°C.							
	Capacitance change	≤ ±20% of the initial value						
	D.F. (tan δ)	≤ 200% 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 500 hours at 85°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)	≤ 200% of the initial specified value						
	Leakage current	≤ The initial specified value						

◆ DIMENSIONS [mm]

● Terminal Code : A



Note : L±0.5 for H63 to JA0

Size code	D	L	A	B	C	W	P
D55	4	5.2	4.3	4.3	5.1	0.5 to 0.8	1.0
E55	5	5.2	5.3	5.3	5.9	0.5 to 0.8	1.4
F55	6.3	5.2	6.6	6.6	7.2	0.5 to 0.8	1.9
H63	8	6.3	8.3	8.3	9.0	0.5 to 0.8	2.3
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

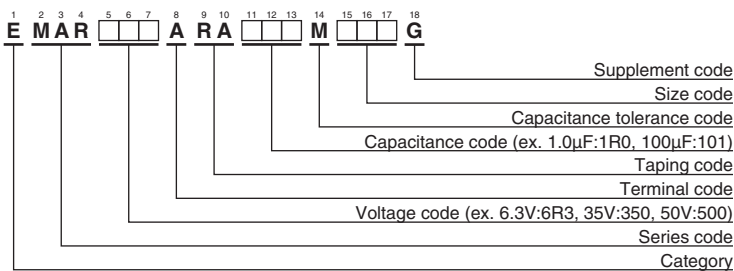
EX) 16V47μF



● Rated voltage symbol

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

◆ PART NUMBERING SYSTEM



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

Alchip™ - **MAR** Series

◆ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size Code	tan δ	Part No.	WV (V _{dc})	Cap (μF)	Size Code	tan δ	Part No.
6.3	22	D55	0.30	EMAR6R3ARA220MD55G	25	4.7	D55	0.16	EMAR250ARA4R7MD55G
	33	E55	0.30	EMAR6R3ARA330ME55G		10	E55	0.16	EMAR250ARA100ME55G
	47	E55	0.30	EMAR6R3ARA470ME55G		22	F55	0.16	EMAR250ARA220MF55G
	100	F55	0.30	EMAR6R3ARA101MF55G		33	F55	0.16	EMAR250ARA330MF55G
	220	H63	0.40	EMAR6R3ARA221MH63G		47	H63	0.16	EMAR250ARA470MH63G
	330	H63	0.40	EMAR6R3ARA331MH63G		100	H63	0.16	EMAR250ARA101MH63G
	470	HA0	0.40	EMAR6R3ARA471MHA0G		220	HA0	0.16	EMAR250ARA221MHA0G
1,000	JA0	0.40	EMAR6R3ARA102MJA0G	330	JA0	0.16	EMAR250ARA331MJA0G		
10	10	D55	0.24	EMAR100ARA100MD55G	35	3.3	D55	0.14	EMAR350ARA3R3MD55G
	22	E55	0.24	EMAR100ARA220ME55G		4.7	D55	0.14	EMAR350ARA4R7MD55G
	33	E55	0.24	EMAR100ARA330ME55G		10	E55	0.14	EMAR350ARA100ME55G
	47	F55	0.24	EMAR100ARA470MF55G		22	F55	0.14	EMAR350ARA220MF55G
	100	F55	0.24	EMAR100ARA101MF55G		33	H63	0.14	EMAR350ARA330MH63G
	220	H63	0.30	EMAR100ARA221MH63G		47	H63	0.14	EMAR350ARA470MH63G
	330	HA0	0.30	EMAR100ARA331MHA0G		100	HA0	0.14	EMAR350ARA101MHA0G
470	JA0	0.30	EMAR100ARA471MJA0G	220	JA0	0.14	EMAR350ARA221MJA0G		
16	4.7	D55	0.20	EMAR160ARA4R7MD55G	50	1.0	D55	0.12	EMAR500ARA1R0MD55G
	10	D55	0.20	EMAR160ARA100MD55G		2.2	D55	0.12	EMAR500ARA2R2MD55G
	22	E55	0.20	EMAR160ARA220ME55G		3.3	D55	0.12	EMAR500ARA3R3MD55G
	33	F55	0.20	EMAR160ARA330MF55G		4.7	E55	0.12	EMAR500ARA4R7ME55G
	47	F55	0.20	EMAR160ARA470MF55G		10	F55	0.12	EMAR500ARA100MF55G
	100	H63	0.26	EMAR160ARA101MH63G		22	H63	0.12	EMAR500ARA220MH63G
	220	HA0	0.26	EMAR160ARA221MHA0G		33	H63	0.12	EMAR500ARA330MH63G
	330	HA0	0.26	EMAR160ARA331MHA0G		47	HA0	0.12	EMAR500ARA470MHA0G
470	JA0	0.26	EMAR160ARA471MJA0G	100	JA0	0.12	EMAR500ARA101MJA0G		