

AVEA Series Standard

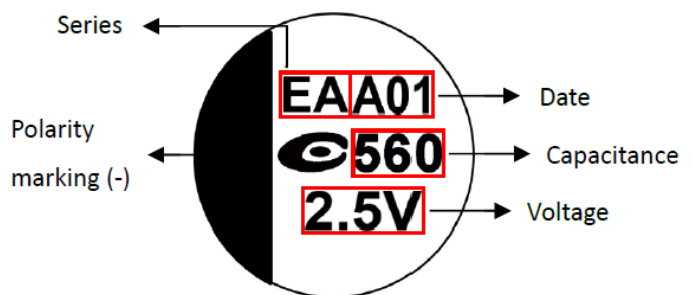
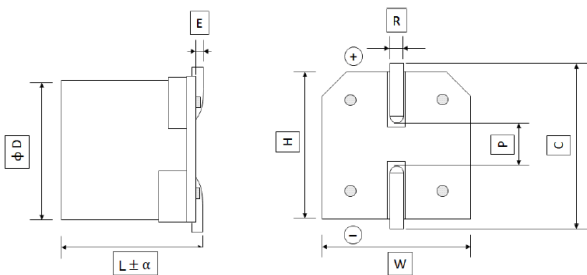
- Standard SMD type
- Rated Voltage: 2.5~25Vdc
- Endurance 2000hrs at 105°C
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- RoHS Compliant



Specification

Category Temperature Range	-55~+105°C	Rated Voltage Range	2.5 to 25Vdc
Rated Capacitance Range	22 to 1000 (μF)	Capacitance Tolerance	±20% (M)
Surge Voltage	Rated voltage X 1.15 (at 105°C)	Dissipation Factor	0.12 max. (at 20°C 120Hz)
Leakage Current	Shall not exceed values shown in standard ratings. (at 20°C after 2 mins.)		
Endurance	105°C, 2000hrs, rated voltage applied		
	Appearance	No significant damage	
	Capacitance Change	≤ ±20% of the initial value	
	DF(tanδ)	≤ 150% of the initial specified value	
	ESR	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	
Damp Heat (Steady State)	60°C, 90 to 95% RH, 1000hrs, voltage applied		
	Appearance	No significant damage	
	Capacitance Change	≤ ±20% of the initial value	
	DF(tanδ)	≤ 150% of the initial specified value	
	ESR	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	
Surge Voltage	1,000 cycles and each one includes charge with surge voltage specified at 105°C for 0.5min through a protective resistor (R=1kΩ) and discharge for 5.5min.		
	Appearance	No significant damage	
	Capacitance Change	≤ ±20% of the initial value	
	DF(tanδ)	≤ 150% of the initial specified value	
	ESR	≤ 150% of the initial specified value	
	Leakage current	≤ The initial specified value	

Dimensions and Marking



Size code	φD±0.5max (mm)	L (mm)	α (mm)	E (mm)	W±0.2 (mm)	H±0.2 (mm)	C±0.2 (mm)	R (mm)	P±0.3 (mm)
0506	5.0	5.8	±0.2	0.00~0.20	5.3	5.3	6.0	0.5~0.8	1.4
0645	6.3	4.3	±0.2	0.00~0.20	6.6	6.6	7.3	0.5~0.8	2.1
0606	6.3	5.8	±0.2	0.00~0.20	6.6	6.6	7.3	0.5~0.8	2.1
0610	6.3	9.7	±0.3	0.00~0.20	6.6	6.6	7.3	0.6~0.9	2.1
0807	8.0	6.8	±0.2	0.00~0.20	8.3	8.3	9.0	0.8~1.1	2.9
0810	8.0	9.7	±0.3	0.00~0.20	8.3	8.3	9.0	0.8~1.1	2.9
0812	8.0	12.0	±0.5	0.00~0.20	8.3	8.3	9.0	0.8~1.1	3.2
1012	10.0	12.3	±0.2	0.00~0.20	10.3	10.3	11.0	0.8~1.1	4.6

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Standard Ratings

WV/Vdc (SV)	Cap (μF)	Size Code	Leakage Current (μA)	ESR (mΩmax/20°C, 100k to 300kHz)	Rated Ripple Current (mArms/ 105°C /100kHz)	Part No.
2.5 (2.9)	330	0645	700	17	2,300	2R5AVEA331M0645
	390	0506	700	10	3,900	2R5AVEA391M0506
	390	0606	292	10	3,900	2R5AVEA391M0606
	560	0606	700	10	3,900	2R5AVEA561M0606
	820	0610	700	10	4,300	2R5AVEA821M0610
6.3 (7.2)	100	0645	315	19	2,300	6R3AVEA101M0645
	220	0645	700	17	2,300	6R3AVEA221M0645
	220	0606	277	15	3,160	6R3AVEA221M0606
	330	0606	416	17	3,390	6R3AVEA331M0606
	560	0610	705	10	4,300	6R3AVEA561M0610
	820	0810	1,033	12	4,700	6R3AVEA821M0810
	1,000	0810	1,260	10	5,440	6R3AVEA102M0810
16 (18.4)	47	0606	376	25	2,500	160AVEA470M0606
	100	0506	320	27	3,000	160AVEA101M0506
	100	0606	320	24	2,490	160AVEA101M0606
	180	0606	576	22	3,300	160AVEA181M0606
	270	0807	864	22	3,300	160AVEA271M0807
	270	0810	864	16	4,400	160AVEA271M0810
	560	0812	1,792	14	4,950	160AVEA561M0812
	1,000	1012	3,200	12	5,400	160AVEA102M1012
25 (28.8)	22	0645	275	45	2,350	250AVEA220M0645
	27	0606	338	40	2,100	250AVEA270M0606