

AV5K Series Long life

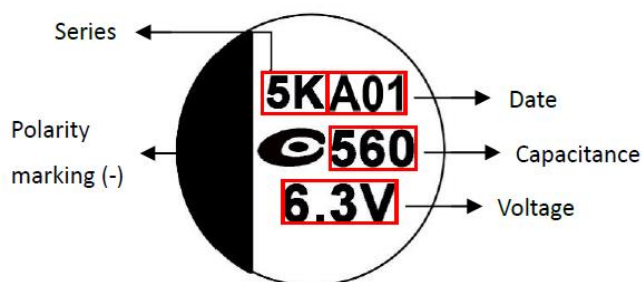
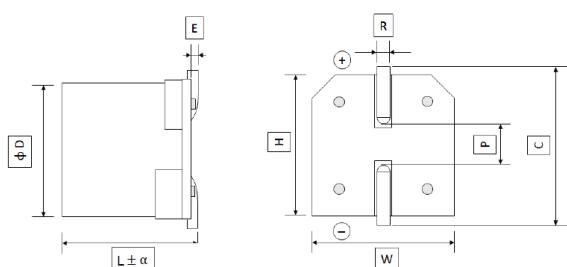
- Standard SMD type
- Rated Voltage: 2.5~25Vdc
- Endurance 5000hrs at 105°C
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- RoHS Compliant



Specification

Category Temperature Range	-55 to 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, 5000hrs, 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~+0.1	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
0608	6.3	7.5	±0.5	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	16	3,180	2R5AV5K331M0645C
	390	0606	489	10	3,900	2R5AV5K391M0606C
	560	0606	700	10	3,900	2R5AV5K561M0606C
	820	0608	700	7	5,000	2R5AV5K821M0608C
	820	0610	700	10	4,300	2R5AV5K821M0610C
6.3 (7.2)	220	0645	700	17	2,300	6R3AV5K221M0645C
	220	0606	277	15	3,160	6R3AV5K221M0606C
	330	0606	416	17	3,390	6R3AV5K331M0606C
	560	0608	705	8	5,000	6R3AV5K561M0608C
	560	0610	705	10	4,300	6R3AV5K561M0610C
16 (18.4)	100	0506	320	26	3,000	160AV5K101M0506C
	100	0606	320	24	2,490	160AV5K101M0606C
	180	0606	576	21	3,300	160AV5K181M0606C
	270	0610	864	16	3,500	160AV5K271M0610C
	270	0807	864	22	3,300	160AV5K271M0807C
	270	0810	864	16	4,400	160AV5K271M0810C
	470	0810	1,504	12	4,700	160AV5K471M0810C
	560	0812	1,792	14	4,950	160AV5K561M0812C
25 (28.8)	1,000	1012	3,200	12	5,400	160AV5K102M1012C
	22	0645	275	45	2,350	250AV5K220M0645C
	27	0606	338	40	2,100	250AV5K270M0606C

