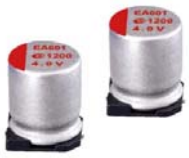
SMD Aluminum Solid Electrolytic Capacitor - ESEE0606 series

■ Introduction

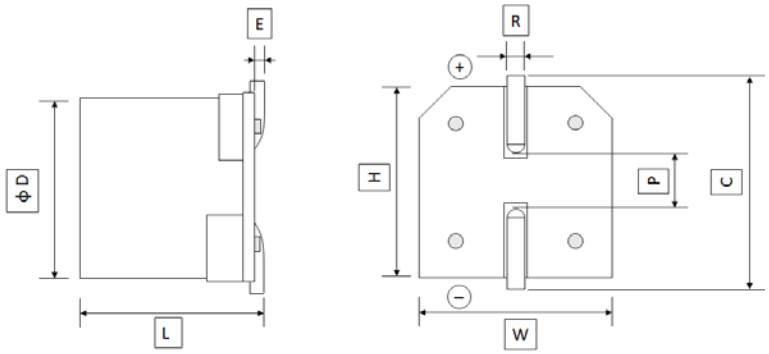
- Standard SMD type
- Rated voltage: 2.5Vdc
- Endurance: 2,000 hours at 105℃
- Suitable for DC-DC converters, voltage regulators and decoupling applications.
- RoHS Compliant



■ Specifications

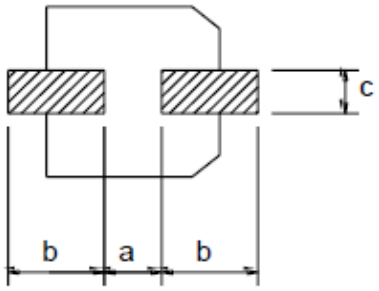
ITEMS	CONDITIONS	CHARACTERISTICS	
Category Temperature Range		-55 to +105℃	
Rated Voltage Range		2.5Vdc	
Capacitance Tolerance	20℃, 120Hz	±20% (M)	
Surge Voltage	15℃ to 35℃	Rated voltage x 1.15V	
Leakage Current	20℃ after 2 minutes	Please see the Electrical Characteristics page	
Dissipation Factor (tan δ)	20℃, 120Hz	0.12 max.	
Characteristics of Impedance at Low, High Temperature	-55℃, 100KHz	Z-(-55℃) /Z(+20℃) ≦1.25	
	105℃ 100KHz	Z-(105℃) /Z(+20℃) ≦1.25	
Endurance	The specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 105℃.	Appearance	No significant damage
		Capacitance Change	≦ ±20% of the initial value
		DF (tan δ)	≦150% of the initial specified value
		ESR	≦150% of the initial specified value
		Leakage current	≦The initial specified value
Damp Heat, Steady State	The specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to store at 60℃, 90 to 95% RH for 1,000 hours, without DC applied.	Appearance	No significant damage
		Capacitance Change	≦ ±20% of the initial value
		DF (tan δ)	≦150% of the initial specified value
		ESR	≦150% of the initial specified value
		Leakage current	≦The initial specified value
Surge Voltage	The Capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified at 105℃ for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30 seconds.	Appearance	No significant damage
		Capacitance Change	≦ ±20% of the initial value
		DF (tan δ)	≦150% of the initial specified value
		ESR	≦150% of the initial specified value
		Leakage current	≦The initial specified value

■ Shape and Dimensions (Unit: mm)



Size code	Φ D ± 0.5	L ± 0.2	E	W ± 0.2	H ± 0.2	C ± 0.2	R	P ± 0.2
0606	6.3	5.8	0~0.2	6.6	6.6	7.3	0.5~0.8	2.1

■ Recommended soldering pad dimensions (Unit: mm)



Size code	0606
a	2.1
b	3.5
c	1.6

■ Ordering Information

ES	EE	0606	561	M	2R5
1	2	3	4	5	6

1. SMD Type
2. Series Name
3. Dimensions Code
4. Capacitance : **561**=560 µF.
5. Capacitance tolerance：**M**= ± 20%.
6. Working Voltage(WV)：**2R5** = 2.5 VDC .

■ Electrical Characteristics

Part No.	Size Code	Cap (µF)	WV/Vdc (SV)	Note(1) Leakage Current (µA)	tan δ	ESR (mΩmax/20℃, 100k to 300KHz)	Rated Ripple Current (mArms/ 105℃/100kHz)
ESEE0606-561M-2R5	0606	560	2.5 (2.9)	700	0.1	16	3,500

Note(1). Leakage Current : DC rated voltage shall be applied between anode and cathode lead wire terminations of a capacitor through 1k protective resistance, and the leakage current shall be less than or equal to the value listed in above table after 2 minutes with the voltage reaching the rated value at 20±2℃.
If the value is doubtful, measure the leakage current after performing voltage treatment which shall contain the following steps:
Voltage treatment: (1) DC rated voltage is applied to the capacitors for 60 minutes at 105℃. (2) Cooled down to room temperature with applying voltage. (3) Discharged through a resistor of approximately 1Ω/V