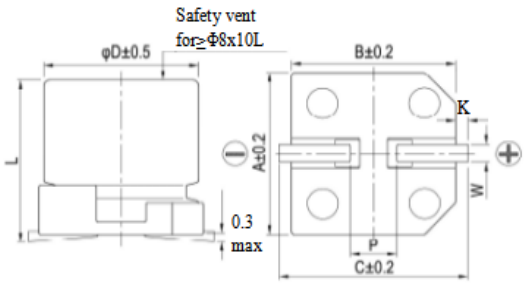
Aillen
EXPERT IN PASSIVE PARTS

Specification: CAE227M1VHUZFJ2TR1 **CDUZ Series**

1. Dimensions: Unit: mm



φD	L	A	B	C	P	K	W
4	5.4 -0.3/+0.5	4.3	4.3	5.0	1.0±0.2	0.5max	0.5~0.8
5	5.4 -0.3/+0.5	5.3	5.3	6.0	1.5±0.2	0.5max	0.5~0.8
6.3	5.4 -0.3/+0.5	6.6	6.6	7.2	2.1±0.2	0.5max	0.5~0.8
6.3	7.7 -0.3/+0.5	6.6	6.6	7.2	2.1±0.2	0.5max	0.5~0.8
8	6.5 -0.3/+0.5	8.3	8.3	9.1	3.1±0.2	0.5max	0.8~1.1
8	10.2±0.5	8.3	8.3	9.1	3.1±0.2	0.5max	0.8~1.2
10	7.7±0.5	10.3	10.3	11.0	4.5±0.2	0.5max	0.8~1.3
10	10.2±0.5	10.3	10.3	11.0	4.5±0.2	0.5max	0.8~1.3

2.Technical Parameter:

Aillen P/N	Cap. (μF) at +20°C	Cap. Tol.(%) at +20°C	Rate Volt . (VDC)	Surge Volt . (VDC)	Oper. Temp. (°C)	Case Size D*L (mm)	Leakage Current[1)] Max at +20°C(μA)	Disspation Factor Max at +20°C 120Hz(%)	ESR Max at +20°C 120Hz (Ω)	ESR Max at +20°C 100kHz (Ω)	R.C Max at 105°C 100kHz (mA rms)	R.C Max at 85°C 120Hz (mA rms)	Load Life at 105°C (hours)
CAE227M1VHUZFJ2TR1	220	±20%	35	40.3	-55~105	8x10.2	77.0	12	/	0.16	600	/	2000

Remark:：
1). L.C.≤0.01CVor 3 (μA) whichever is greater,After 2 minute measured with rated working voltage applied,C: Capacitance (μF) V: Rated DC Working Voltage (V).

3. Multiplier For Ripple Current

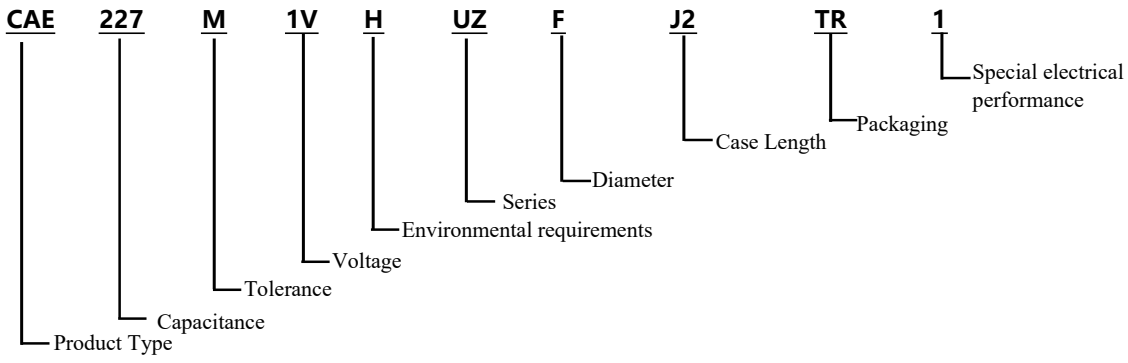
Remark:When capacitors are operated at temperatures other than +105°C, and frequency other than 100kHz, the maximum Ripple Current(R.C.) must be multiplied by the factors shown in below table.

Frequency	50Hz	120Hz	300Hz	1kHz	≥10kHz
Coefficient	0.64	0.70	0.75	0.83	1.00

4.Characteristics

Item	Characteristics								
Load Life	The capacitor is stored at a temperature of 105°C ±2 with rated voltage applied continuously for 2000+48/0 hours, Then the product should be tested after 16 hours recovering time at atmospheric conditions. The result should meet the following table:								
	Capacitance Change	Within ±30% of initial value							
	Dissipation Factor	Not more than 300% of the specified value							
	Leakage Current	Not more than the specified value							
Shelf Life	The capacitors are then stored with no voltage applied at a temperature of 105±2℃ for 1000+48/0 hours. Following this period the capacitors shall be removed from the test chamber and be allowed to stabilized at room temperature for 4~8 hours.Next they shall be connected to a series limiting resistor(1k±100Ω) with D.C. rated voltage applied for 30min. After which the capacitors shall be discharged, and then, tested the characteristics.								
	Capacitance Change	Within ±30% of initial value							
	Dissipation Factor	Not more than 300% of the specified value							
	Leakage Current	Not more than 200% of the specified value							
Low Temperature Stability	Rated Voltage (V)	6.3	10	16	25	35	50	63	80
	Z-25°C/Z+20°C（120Hz）	4	3	2	2	2	2	2	2
	Z-55°C/Z+20°C（120Hz）	8	5	4	3	3	3	3	3

5. Part Number System:



6. Welding methods and applicability

6.1 Methods the following:

Reflow soldering: please follow the temperature condition during welding. If high temperature is used, please measure and inform the capacitor temperature and reflow soldering condition. The product size is larger and its rising temperature is slower. It is not necessary to adjust the temperature of the reflow solder in accordance with the size of the product. For example, the products of 4 and 10 will be installed in the PCB over tin furnace.

6.2 Precautions for soldering tin:

Related factors of reflow soldering temperature:

The product size is larger and its temperature rises slowly

Product installation position: The temperature of PCB center is lower than that of PCB。

6.3 Reflow soldering:

If possible, avoid reflow soldering twice

If repeated reflux is unavoidable, measure and inform the first and second reflux temperature, and the time of reflow soldering

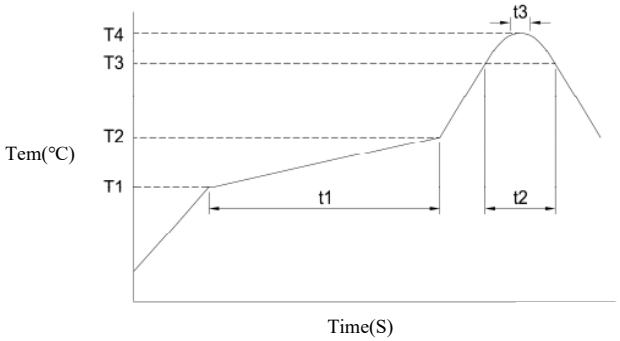
6.4 Please do not 3 times of reflow soldering:

Please follow the following conditions when soldering tin soldering:

6.4.1 Soldering iron maximum temperature: 350±5℃

6.4.2 Welding time: 3+1/-0S

Conditions for the use of lead-free reflow soldering.:



Test method and peak temperature permissible range

Products category		SMD aluminum electrolytic capacitor					
Rated voltage (V)		4~50	≥63	4~100	≥160		
Product size		4~6.3x5.4~7.7		8~18	≥12.5		
preheating	Tem (T_1~T_2, ℃)	150~180					
	Time (t_1) Max,S	100					
The duration of the	Tem (T_3, ℃)	217	230	217	217	230	217
	Time (t_2) Max,S	90	60	60	60	40	40
The highest temperature	Tem (T_4, ℃)	260		250	250		240
	Time (t_3) Max,S	5					
Return the number		1					

Remark:

1)Please contact us if the conditions of use are higher than those listed above;

2)When performing second reflow soldering, please make sure the temperature of capacitor has cooled to 5 ~ 35 ℃;

3)If the reflow condition is based on IPC/JEDEC(J-STD-020),please contact us;

4)Reflow Soldering Considerations

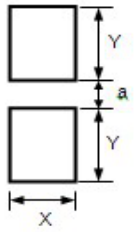
Reflow soldering will reduce the rated electrostatic capacity of the product, and it should be confirmed whether reflow soldering condition meets the specification of recommended reflow soldering

Although the actual reflow condition change is still based on the reflow soldering method, please note that the highest temperature and the electrode terminal at the bottom of the aluminum shell must not exceed the maximum temperature

OP - CAP products during the process of reflow heating temperature should increase to more than 200 ℃

If the reflow condition temperature or duration is greater than the above table, the OP-CAP product will be damaged. The electrostatic capacity of the product is reduced by about 50%, the leakage current is large (up to m A), and the outside of the capacitor is damaged

7.Recommended Land Size (Unit: mm)

Size	X	Y	a	Pictorial Representation
Φ4	1.6	2.6	1	
Φ5	1.6	3	1.4	
Φ6.3	1.6	3.5	1.9	
Φ8	2.5	3.5	3	
Φ10	2.5	4	4	

8. Taping Specifications:

Applicable standard JIS C0806 and IEC 60286.

8.1Carrier Tape and Dimension

Size :∅4 ~ ∅10

Fig. 1-1

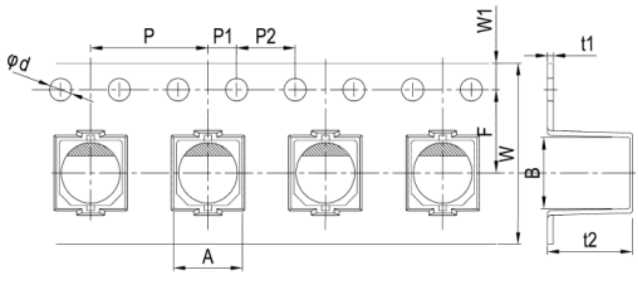
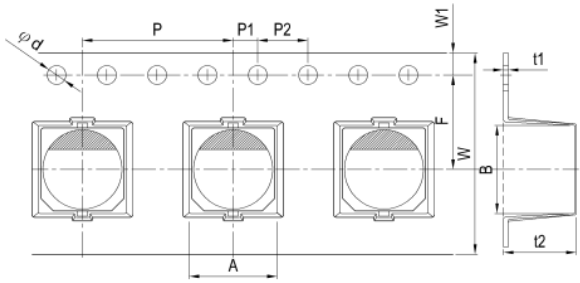


Fig. 1-2



Size	W (mm)	P (mm)	F (mm)	A (mm)	B (mm)	t_2 (mm)	Φd	P_1	P_2	t_1	W_1	Applicable
Φ4*5.4	12	8	5.5	4.7	4.7	5.8	1.5	2.0	4.0	0.4	1.75	Fig.1-1
Φ5*5.4	12	12	5.5	6.0	6.0	5.8	1.5	2.0	4.0	0.4	1.75	Fig.1-2
Φ6.3*5.4	16	12	7.5	7.0	7.0	5.8	1.5	2.0	4.0	0.4	1.75	
Φ6.3*7.7	16	12	7.5	7.0	7.0	8.3	1.5	2.0	4.0	0.4	1.75	
Φ8*6.5	16	12	7.5	8.7	8.7	6.8	1.5	2.0	4.0	0.4	1.75	
Φ8*10.2/10.5	24	16	11.5	8.7	8.7	11	1.5	2.0	4.0	0.4	1.75	
Φ10*7.7	24	16	11.5	10.7	10.7	8.7	1.5	2.0	4.0	0.4	1.75	
Φ10*10.2/10.5	24	16	11.5	10.7	10.7	11	1.5	2.0	4.0	0.4	1.75	