

ACAS Series

- Feature: Low ESR, Surface mounting, Reduced height, Wide temperature range
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- Rate voltage: 2~25Vdc.
- Endurance: 2000hrs at 105°C
- RoHS Compliant



Specifications			
Item	Conditions	Characteristics	
Category Temperature Range		-55 to +105 °C	
Rated Voltage Range		2 to 25 Vdc	
Capacitance Tolerance	at 20°C, 120Hz	±20 % (M) ; Y : +10 ~ -35%	
Leakage Current	at 20°C after 2 minutes	$I \leq 0.1CV$ (2 V.DC to 6.3 V.DC) $I \leq 0.3CV$ (25 V.DC) I : Leakage Current(μA), C : Rated Capacitance(μF), V : Rated Voltage(V)	
Surge Voltage	15 to +35°C	Rated voltage × 1.25 (2 V.DC to 6.3 V.DC) Rated voltage × 1.15 (25 V.DC)	
Dissipation Factor (tanδ)	at 20°C , 120Hz	0.06 max.	
Endurance	105°C, rated voltage applied, 2000 hrs.	Appearance	No significant damage
		Capacitance Change	±20% of the initial value
		Dissipation Factor	≤ 200% of the initial specified value
		Leakage Current	2 V.DC to 6.3 V.DC ≤ 300% of the initial specified value 25 V.DC ≤ within the initial limit
Damp Heat, Steady State	60°C, 90 to 95%RH, 500 hrs.	Appearance	No significant damage
		Capacitance Change	(2 V.DC to 2.5 V.DC) +70%, -20% of the initial value (6.3V.DC) +50%, -20% of the initial value (25 V.DC) +60%, -20% of the initial value
		Dissipation Factor	≤ 200% of the initial specified value
		Leakage Current	2 V.DC to 6.3 V.DC within the initial specified value 25 V.DC ≤ 300% of the initial specified value
Surge Voltage	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages, at 15°C to 35°C for 30 seconds through a protective resistor(R=1KΩ) and discharge for 5min 30 seconds.	Appearance	No significant damage
		Capacitance Change	±10% of the initial value
		Dissipation Factor	within the initial specified value
		Leakage Current	within the initial specified value

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Standard Ratings

WV(VDC)	Cap (μF)@120Hz	tanδ Max. @120Hz	Leakage Current Max. (μA)	ESR Max. (mΩ) @100kHz	Ripple Current (mArms) @100kHz	Part No.
2	220	0.06	44.0	9.0	6,300	ACAS2R0S221E09
	220	0.06	44.0	9.0	6,300	ACAS2R0S221E09Y
	330	0.06	66.0	9.0	6,300	ACAS2R0S331E09
	330	0.06	66.0	9.0	6,300	ACAS2R0S331E09Y
	330	0.06	66.0	6.0	7,500	ACAS2R0S331E06
2.5	220	0.06	55.0	9.0	6,300	ACAS2R5S221E09
	220	0.06	55.0	9.0	6,300	ACAS2R5S221E09Y
	330	0.06	82.5	9.0	6,300	ACAS2R5S331E09
	330	0.06	82.5	9.0	6,300	ACAS2R5S331E09Y
	330	0.06	82.5	6.0	7,500	ACAS2R5S331E06
6.3	100	0.06	63	15.0	2,700	ACAS6R3S101E15
	150	0.06	94.5	15.0	5,100	ACAS6R3S151E15Y
25	15	0.06	112.5	40.0	3,200	ACAS250S150E40
	22	0.06	165.0	40.0	3,200	ACAS250S220E40

Temperature Compensation Multipliers for Ripple Current			
	≤ 45℃	45℃ < T ≤ 85℃	85℃ < T ≤ 105℃
2 V.DC to 2.5 V.DC	1.0	0.7	0.25
6.3 V.DC to 25 V.DC	1.0	0.8	0.5

PRODUCT IDENTIFICATION

<u>ACAS</u>	<u>2R5</u>	<u>S</u>	<u>471</u>	<u>E04</u>	☐
Product	Rated Voltage	Case Height	Capacitance	ESR	Suffix for special code
	2R5: 2.5V	S:1.9mm	471=470μF	E04: 4.5mΩ	Y=+10~-35%

DIMENSIONS AND MARKING

Case size	L	WA	WB	H	P
S	7.3±0.3	4.3±0.3	2.4±0.2	1.9±0.2	1.3±0.2

