



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		6.3 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 2.5 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 2.5 V.DC) Rated voltage × 1.15 (25 V.DC)	
Dissipation Factor (tanδ)	at 20°C , 120Hz	Case Height : S Type, 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 2.5 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 (25 V.DC) +60%, -20% of the initial value
		Dissipation Factor	≤ 200% of the initial specified value
		Leakage Current	2 V.DC to 2.5 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 (A r.m.s) @100kHz	Part No.
2	220	0.06	44	6	7.5	ACAS2R0S221E06
	220	0.06	44	9	6.3	ACAS2R0S221E09
	220	0.06	44	9	6.3	ACAS2R0S221E09Y
	220	0.06	44	15	5.1	ACAS2R0S221E15
	330	0.06	66	6	7.5	ACAS2R0S331E06
	330	0.06	66	9	6.3	ACAS2R0S331E09
	470	0.06	94	6	7.5	ACAS2R0S471E06
	560	0.06	112	4.5	8.5	ACAS2R0S561E04
	560	0.06	112	6	7.5	ACAS2R0S561E06
2.5	220	0.06	55	9	6.3	ACAS2R5S221E09
	220	0.06	55	9	6.3	ACAS2R5S221E09Y
	330	0.06	82.5	6	7.5	ACAS2R5S331E06
	330	0.06	82.5	9	6.3	ACAS2R5S331E09
	330	0.06	82.5	9	6.3	ACAS2R5S331E09Y
	470	0.06	117.5	6	7.5	ACAS2R5S471E06
6.3	100	0.06	63	15	5.1	ACAS6R3S101E15
	150	0.06	94.5	9	6.3	ACAS6R3S151E09
	150	0.06	94.5	15	5.1	ACAS6R3S151E15
	150	0.06	94.5	15	5.1	ACAS6R3S151E15Y
	220	0.06	138.6	9	6.3	ACAS6R3S221E09
	220	0.06	138.6	9	6.3	ACAS6R3S221E09Y
	220	0.06	138.6	15	5.1	ACAS6R3S221E15
	220	0.06	138.6	15	5.1	ACAS6R3S221E15Y
16	56	0.06	268.8	40	3.2	ACAS160S560E40
	68	0.06	326.4	40	3.2	ACAS160S680E40
	100	0.06	326.4	40	3.2	ACAS160S101E40
20	47	0.06	282	40	3.2	ACAS200S470E40
25	15	0.06	112.5	40	3.2	ACAS250S150E40
	22	0.06	165	40	3.2	ACAS250S220E40



Temperature Compensation Multipliers for Ripple Current			
	$\leq 45^{\circ}\text{C}$	$45^{\circ}\text{C} < T \leq 85^{\circ}\text{C}$	$85^{\circ}\text{C} < T \leq 105^{\circ}\text{C}$
2 V.DC to 2.5 V.DC	1.0	0.7	0.25
10 V.DC to 25 V.DC	1.0	0.8	0.5

PRODUCT IDENTIFICATION

<u>ACAS</u>	<u>6R3</u>	<u>S</u>	<u>331</u>	<u>E09</u>	☐
Product	Rated Voltage	Case Height	Capacitance	ESR	Suffix for special code
	6R3: 6.3V	S:1.9mm	331=330μF	E09: 9mΩ	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

