

ACJL Series

- Feature: Surface mounting, Reduced height, Wide temperature range
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- Rate voltage: 2-2.5Vdc.
- Endurance: 3000hrs at 125°C
- RoHS Compliant



Specifications

Item	Conditions	Characteristics	
Category Temperature Range		-55 to +125 °C	
Rated Voltage Range		2-2.5 Vdc	
Capacitance Tolerance	at 20°C, 120Hz	$\pm 20\% \text{ (M)}$; Y : $+10 \sim -35\%$	
Leakage Current	at 20°C after 2 minutes	$I \leq 0.1CV$ I : Leakage Current(μA), C : Rated Capacitance(μF), V : Rated Voltage(V)	
Surge Voltage	15°C to 35°C	Rated voltage $\times 1.25$ (2 V.DC to 2.5 V.DC)	
Dissipation Factor ($\tan\delta$)	at 20°C , 120Hz	≤ 0.1	
Endurance	125°C, rated voltage applied, 3000 hrs	Appearance	No significant damage
		Capacitance Change	$\leq \pm 20\%$ of the initial value
		Dissipation Factor	$\leq 200\%$ of the initial specified value
		ESR($m\Omega$)	$\leq 200\%$ of the initial specified value
		Leakage Current	$\leq 300\%$ of the initial specified value
Damp Heat, Steady State	85°C, 85%RH, 1000 hrs	Appearance	No significant damage
		Capacitance Change	(2 V.DC to 2.5 V.DC) $+70\%$, -20% of the initial value
		Dissipation Factor	$\leq 200\%$ of the initial specified value
		ESR($m\Omega$)	$\leq 200\%$ of the initial specified value
		Leakage Current	$\leq 500\%$ of the initial specified value
Surge Voltage	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages,125% rated voltage, at 15-35°C for 30 seconds through a protective resistor($R=1K\Omega$)and discharge for 5min 30 seconds	Appearance	No significant damage
		Capacitance Change	$\leq \pm 10\%$ 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.
105°C	125°C						
2	1.6	330	0.1	66	9	6.3	*ACJL2R0S331E09
		470	0.1	94	6	7.5	*ACJL2R0S471E06
		470	0.1	94	9	6.3	*ACJL2R0S471E09
2.5	2	330	0.1	82.5	9	6.3	*ACJL2R5S331E09
		470	0.1	117.5	3	10.2	*ACJL2R5S471E03

*2025 Q4 engineering

Temperature Compensation Multipliers for Ripple Current

Temperature	$\leq 45^{\circ}\text{C}$	$45^{\circ}\text{C} < T \leq 85^{\circ}\text{C}$	$85^{\circ}\text{C} < T \leq 105^{\circ}\text{C}$	$125^{\circ}\text{C} < T$
2 V.DC – 2.5 V.DC	1.0	0.7	0.25	0.25

PRODUCT IDENTIFICATION

<u>ACJL</u>	<u>2R0</u>	<u>S</u>	<u>331</u>	<u>E09</u>
Product	Rated Voltage	Case Height	Capacitance	ESR
2R0: 2.0V	S:1.9mm	331=330μF	E09: 9mΩ	

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±0.3	1.3±0.2

