


△Note 1. This Specifications and Test Methods is downloaded from the website of Murata Manufacturing co.,Ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
 2. This Specifications and Test Methods has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

ECAS Series Specifications and Test Methods

No.	Item	Specifications	Test Methods	
1	Operating Temperature Range	-40°C to +105°C		
2	Leakage Current	$\leq 0.04CV$ for W.V. 2V to 10V $\leq 0.1CV$ for W.V. 12.5V to 16V	Series Resistor: 1000 ohm Applied Voltage: Rated Voltage Measuring after 2 minutes of application. Please conduct pre-conditioning below, if you have a doubt. Pre-conditioning: · Temperature: Room Temp. · Applied Voltage: Rated Voltage · Series Resistor: 1000 ohm · Charge Time: 30 min.	
3	Capacitance Tolerance	$\pm 20\%$	Measuring Frequency: 120Hz $\pm 10\%$ Measuring Circuit: Equivalent Series Circuit Measuring Voltage: +1Vr.m.s. Measuring Temperature: 25°C	
4	Dissipation Factor	≤ 0.06		
5	ESR	(ESR is part number dependent.)	Measuring Frequency: 100kHz $\pm 10\%$ Measuring Voltage: no more than +1Vr.m.s. Measuring Temperature: 25°C	
6	Allowable Ripple Current	(Allowable Ripple Current is part number dependent.)	Measuring Frequency: 100kHz $\pm 10\%$ Part Temperature: +20 to +105°C	
7	Solderability	More than 95% of each terminal face is covered by new solder	Eutectic Solder: H60A Flux: Ethanol solution of 25% rosin Solder Temperature: 235 $\pm 5^\circ\text{C}$ Immersing Time: 5 $\pm 0.5\text{s}$	
8	Moisture Resistance under No Bias	Leakage Current	$\leq 0.3CV$	Test Temperature: 60 $\pm 2^\circ\text{C}$ Relative Humidity: 90 to 95%RH Test Time: 500+24, -0h
		Capacitance Change	-20% and +50% of initial value	
		Dissipation Factor	≤ 0.12	
		Appearance	No defects or abnormalities	
9	Moisture Resistance under Load	Leakage Current	$\leq 0.04CV$ for W.V. 2V to 10V $\leq 0.1CV$ for W.V. 12.5V to 16V	Test Temperature: 60 $\pm 2^\circ\text{C}$ Relative Humidity: 90 to 95%RH Test Time: 1000+48, -0h Applied Voltage: Rated Voltage
		Capacitance Change	-20% and +50% of initial value	
		Dissipation Factor	≤ 0.12	
		Appearance	No defects or abnormalities	
10	Shelf Life	Leakage Current	$\leq 0.04CV$ for W.V. 2V to 10V $\leq 0.1CV$ for W.V. 12.5V to 16V	Test Temperature: 105 $\pm 2^\circ\text{C}$ Test Time: 1000+48, -0h
		Capacitance Change	$\pm 10\%$ of initial measured value	
		Dissipation Factor	≤ 0.06	
		Appearance	No defects or abnormalities	
11	Endurance	Leakage Current	$\leq 0.04CV$ for W.V. 2V to 10V $\leq 0.1CV$ for W.V. 12.5V to 16V	Test Temperature: 105 $\pm 2^\circ\text{C}$ Test Time: 1000+48, -0h Applied Voltage: Rated Voltage
		Capacitance Change	$\pm 10\%$ of initial measured value	
		Dissipation Factor	≤ 0.06	
		Appearance	No defects or abnormalities	

Continued on the following page. 

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ECAS Series Specifications and Test Methods

Continued from the preceding page.

No.	Item	Specifications	Test Methods	
12	Surge	Leakage Current	Temperature: +85°C for W.V. 2V to 10V Room Temp. for W.V. 12.5V to 16V Applied Voltage: Rated Voltage x1.25 for W.V. 2V to 10V Rated Voltage x1.15 for W.V. 12.5V to 16V Current Limiting Resistance: 33 ohm(in series) for W.V. 2V to 10V 1k ohm(in series) for W.V. 12.5V to 16V Discharge Resistance: 33 ohm(in series) for W.V. 2V to 10V 1k ohm(in series) for W.V. 12.5V to 16V Charge on/off : 30 sec. each, 1000 times	
		Capacitance Change		±10% of initial measured value
		Dissipation Factor		≤0.06
		Appearance		No defects or abnormalities

(The measurement condition in No.2 to 4 applies to No.8 to 12.)