

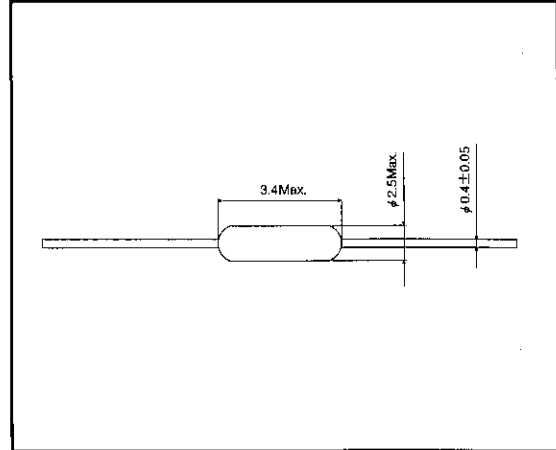
Multi-layer ceramic capacitors

SA055F104ZB2 (axial lead type capacitor)

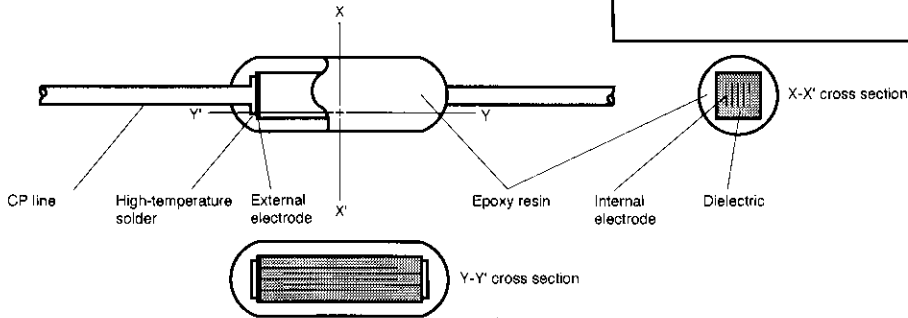
●Features

- 1) Ceramic chip capacitor with attached leads and epoxy resin coating for superior humidity resistance and insulation.
- 2) No polarity.
- 3) Automatic insertion possible with axial tape.

●External dimensions (Units: mm)



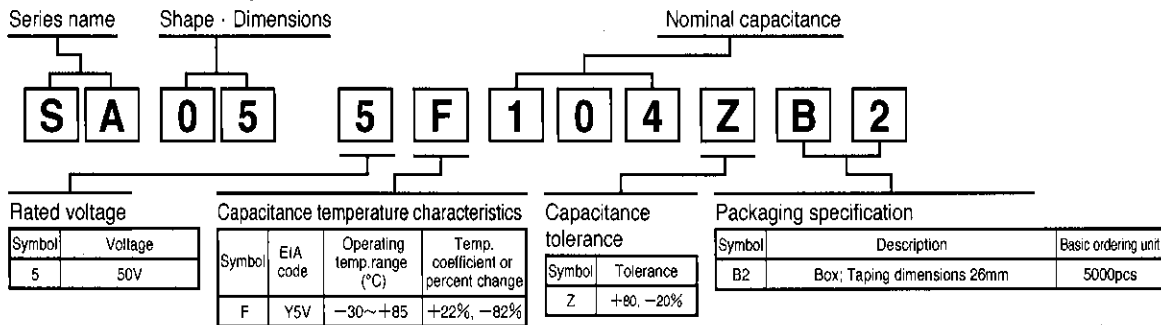
●Structure



●Makeup of the part number

- When ordering, please specify the part number.
- Please check to be sure of what combination of features you wish to order.
- Fill in the blanks from left to right.

Three-digit number indicates the number of picofarads. The first two digits are the significant digits; the last digit gives the number of zeros. Example: 104 = 100,000 pF



● Characteristics

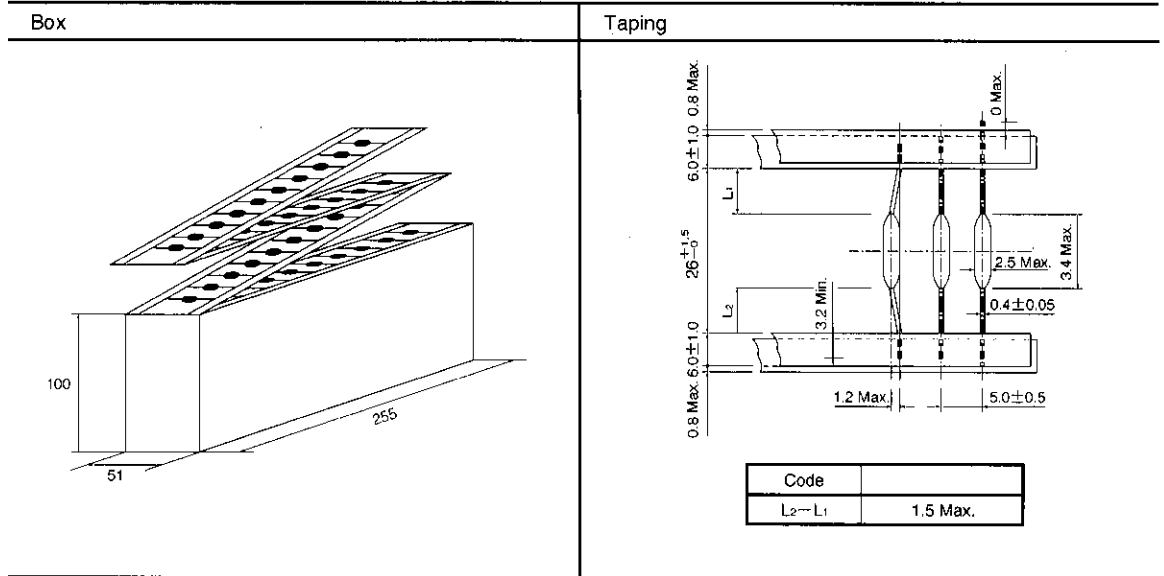
Temperature characteristics		F (Y5V)	Test methods/conditions (based on JIS C 5102)
Operating temperature range		-25°C ~ +85°C	—
Nominal capacitance (C)		Must be within the specified tolerance range.	Based on paragraph 7.8, 9 Measured at room temperature and standard humidity. Measurement frequency : 1±0.1kHz Measurement voltage : 1±0.2Vrms.
Dissipation factor (tan δ)		5.0% or less	
Insulation resistance (IR)		10,000 MΩ or larger, or 500 ΩF or larger, whichever is smaller	Based on paragraph 7.6 is applied for 60±5s Measurement is made after rated voltage.
Withstanding voltage	Between terminals	There must be no irregularities.	Based on paragraph 7.1 for 1 to 5s Apply 250% of the rated voltage.
	Between terminals and body		
Temperature characteristics		+22, -82%	Based on paragraph 7.12, table 12 The temperature coefficients are measurements carried out at 20°C, with no voltage applied.
Terminal strength	Tensile	There must be no broken leads, or damage to the capacitor.	Paragraph 8.1 test conditions, table 13
	Torsional	There must be no broken leads.	Paragraph 8.1 test conditions, table 14
Resistance to vibration	Appearance	There must be no noticeable irregularities.	Based on paragraph 8.2 (class A) Measured after 48±4 hours in the manner specified.
	Rate of capacitance change	Must be within initial tolerance.	
	Dissipation factor	Must satisfy initial specified value.	
Solderability		At least 3/4 of the area of the immersed lead must be covered with new solder.	Based on paragraph 8.13 Soldering temperature : 235±5°C Soldering time : 2±0.5s
Resistance to solder heat	Appearance	There must be no noticeable irregularities.	Based on paragraph 8.5 Soldering temperature : 270±0.5°C Soldering time : 3±0.5s Capacitance measured after 48±2 hrs.
	Rate of capacitance change	Within ±20.0%	
	Dissipation factor	Must satisfy initial specified value.	
	Insulation resistance	10,000 MΩ or larger, or 500 ΩF or larger, whichever is smaller	
	Withstanding voltage	There must be no irregularities.	
Temperature and soldering cycling	Appearance	There must be no noticeable irregularities.	Based on paragraph 9.18 Number of cycles Temperature cycles : 5 cycles Soldering cycles : 2 cycles Capacitance measured after 48±2 hrs.
	Rate of capacitance change	Within ±30.0%	
	Dissipation factor	7.5% or less	
	Insulation resistance	1,000MΩ or larger, or 50 ΩF or larger, whichever is smaller	
	Withstanding voltage	There must be no irregularities.	
Humidity load test	Appearance	There must be no noticeable irregularities.	Based on paragraph 9.9 Test temperature : 40±2°C Relative humidity : 90~95% Applied voltage : rated voltage Test time : 500 to 524 hrs. Capacitance measured after 48±4 hrs.
	Rate of capacitance change	Within ±30.0%	
	Dissipation factor	7.5% or less	
	Insulation resistance	500MΩ or larger, or 25 ΩF or larger, whichever is smaller	
High-temperature load test	Appearance	There must be no noticeable irregularities.	Based on paragraph 9.10 Test temperature : Max. operating temp. Applied voltage : rated voltage x 200% Test time : 1,000 to 1,048 hrs. Capacitance measured after 48±4 hrs.
	Rate of capacitance change	Within ±30.0%	
	Dissipation factor	7.5% or less	
	Insulation resistance	1,000MΩ or larger, or 50 ΩF or larger, whichever is smaller	

Ceramic Capacitors

Multi-layer ceramic capacitors (radial type)

●Packaging

(Units: mm)



●Electrical characteristics

Rate of capacitance change vs. temperature characteristics

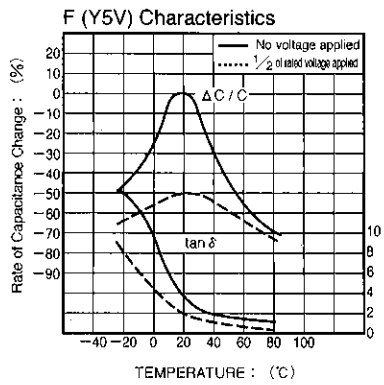


Fig.1

Rate of capacitance change vs. DC voltage characteristics

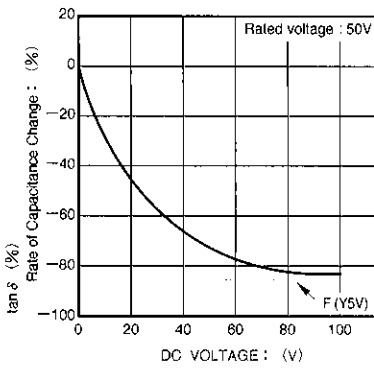


Fig.2

Impedance vs. frequency characteristics

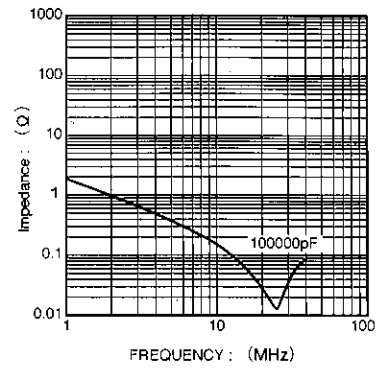


Fig.3

●Electrical characteristics

Temperature cycling test

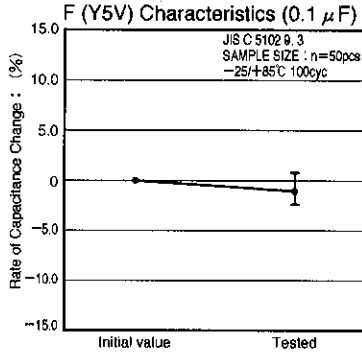


Fig.4 Rate of capacitance change

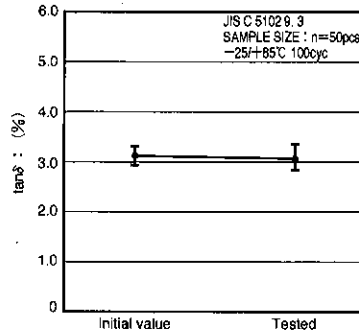


Fig.5 Dissipation factor

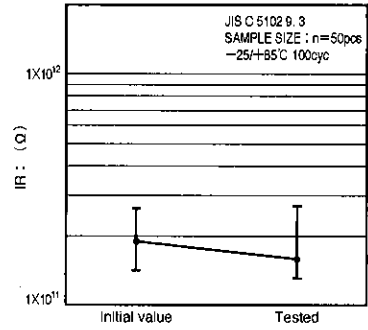


Fig.6 Insulation resistance

High-temperature load test

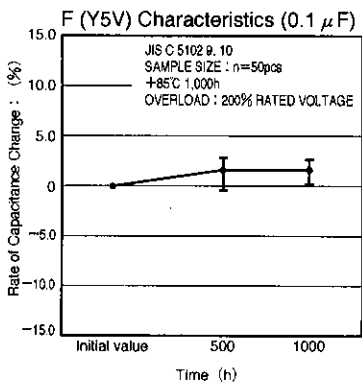


Fig.7 Rate of capacitance change

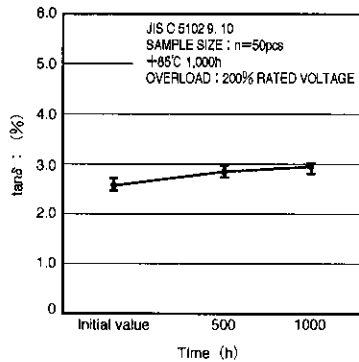


Fig.8 Dissipation factor

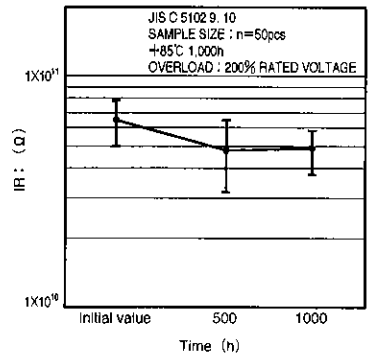


Fig.9 Insulation resistance

Humidity load test

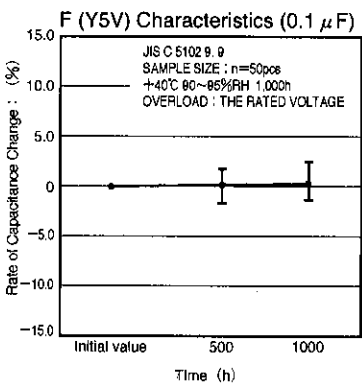


Fig.10 Rate of capacitance change

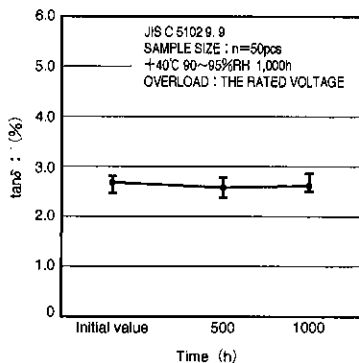


Fig.11 Dissipation factor

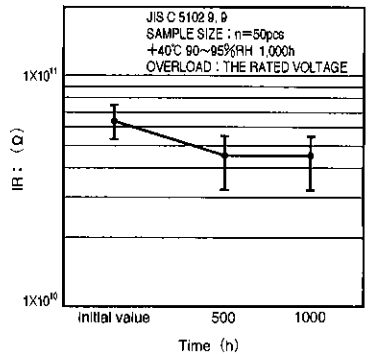


Fig.12 Insulation resistance

Ceramic Capacitors

Multi-layer ceramic capacitors (radial type)

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