

Performance and Test Methods

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Item		Performance	Test Methods and Conditions (In accordance with JIS C 5101-1)					
		X7R Characteristics						
Capacitance		Within the tolerance	<table><tr><td>Measurement Frequency</td><td>Measurement Voltage</td></tr><tr><td>1kHz± 10%</td><td>1.0V± 10%</td></tr></table> Heat-treated before measuring		Measurement Frequency	Measurement Voltage	1kHz± 10%	1.0V± 10%
Measurement Frequency	Measurement Voltage							
1kHz± 10%	1.0V± 10%							
Dissipation Factor		2.5% or less						
Withstanding Voltage		No insulation breakdown and no failure.	Applied Voltage : 1~5sec. Applied in silicon oil Charging & Discharging Current : 50mA max Test Voltage: Rated Voltage × 250%					
Insulation Resistance		No less than 10,000MΩ	Applied Voltage : Rated Voltage Applied Time : 1min.					
Adhesion Strength of Termination	Wire-Bonding	0.03N or more	Wire-bonded by φ25μ wire, then pull the wire in order to measure the strength					
Temp. Cycle	Visual	No serious mechanical damage.	Room Temp.→ Minimum Operation Temp. →Room Temp.→ Maximum Operation Temp.					
	Capacitance Change	±7.5% or less	3min. → 30min. →3min. → 30min.					
	Dissipation Factor (or Q)	Initial standard values must be satisfied.						
	Insulation Resistance	Initial standard values must be satisfied.	Leaving a sample under the temperature of step 1~4 above in order to complete 1 cycle. The cycle is repeated 5 times.					
	Withstanding Voltage	No insulation breakdown and no failure.						
Humidity Load Test	Visual	No serious mechanical damage.	Voltage Treatment					
	Capacitance Change	± 12.5% or less	Test Temperature : 85±2℃					
	Dissipation Factor (or Q)	Less than double of the initial value	Relative Humidity : 85±3%RH					
	Insulation Resistance	No less than 1,000MΩ or 50MΩ ·μF, whichever is smaller.	Test Voltage : 3.0 Test Time : 240-0,+24hours					
Life Test (at Elevated Ambient Temp.)	Visual	No serious mechanical damage.	Voltage Treatment Test Temp. :125±3℃ Test Voltage: Rated Voltage Test Time : 2000-0,+48hours					
	Capacitance Change	± 12.5% or less						
	Dissipation Factor (or Q)	Less than double of the initial value						
	Withstanding Voltage	No less than 1,000MΩ or 50MΩ ·μF, whichever is smaller.						

Note1 : Heat Treatment: The capacitor is heat-treated at 150+0/-10℃ for 1 hour, then is left at room temperature for 48± 4 hours.  
Note2 : Voltage Treatment : The capacitor is processed under the prescribed examination condition for 1 hour, then is left at room temperature for 48± 4 hours.