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No	Item	Test Method	Specification					
10	Resistance to Soldering Heat	Preheat the capacitor at 120℃ for 1 minute. Have the capacitor dip into the solder bath at 270±5℃ for 10±0.5 second. Set it at room temperature(25℃) for 48±4hrs, them measure. Initial measurement for X7R,X5R, Y5V,Z5U.Perform a heat treatment at 120±5℃ for one minute and then set it at room temperature(25℃) for 48±4hrs.Perform the initial measurement.	Dielectric	NPO	X7R X5R	Y5V	Z5U	
			Appearance	No defect				
			Capacitance Change	<±2.5% or ±0.25pF	±7.5%	±20%	±20%	
			DF(or Q)	C≥30pF:Q≥1000 C≤30pF Q≥400+20C	Same as no.2	Same as no.2	Same as no.2	
			IR	More than 1G Ω or 50M Ω (Whichever is Smaller)				
			Dielectric Strength	No failure				
11	Aging Rate	Preheat a heat treatment at 150±10℃ for one hour and then set it at room temperature(25℃) for 48±4hrs. Perform the initial measurement. After 1000 hours perform the final measurement.	Capacitance Change	NPO≤1% / decade hour X7R/X5R≤3% / decade hour Y5V≤5% / decade hour Z5U≤5% / decade hour				
			DF	Same as no.2				
12	High Temperature Load	Applied 200% of the rate voltage for 1000 ± 12 hours at the maximum operating temperature± 3℃. Let sit for 24±2 hours(NPO) or 48±4 hours(X7R,X5R, Y5V,Z5U)at room temperature(25℃), then measure.High Voltage Serier (500V~4KV) Applied 150% of the rated voltage for 500V; 125% of the rated voltage for 1~4KV/Y2/Y3 for 1000±12hours at the maximum operating temperature±3℃. Let sit for 24±2hours (NPO) or 48± hours (X7R,X5R,Y5V,Z5U) at room temperture. Them measure.	Dielectric	NPO	X7R X5R	Y5V/Z5U		
			Appearnce	No defect				
			Capacitance Change	<±3% or ±0.3pF	±12.5%	±30%		
			DF(or Q)	C>30pF : Q ≥350 10pF≤ C ≤350pF Q≥275+5C/2 C<10pF: Q≥200+10C	Vr=50V~4KV DF≤7.0% Vr=25V/16V DF≤11% Vr=10V DF≤13% Vr=6.3V DF≤15%	Vr≥25V, 10%,max Vr=16V, 13%,max Vr=10V, 16%,max Vr=6.3V DF≤18.0%		
			IR	More than 1G Ω or 50M Ω (Whichever is Smaller)				
			Dielectric Streghth	No failure				
13	Humidity, Steady State	Set the capacitor at 40 ± 2℃ and 90 to 95% humidity for 500 ± 12hours. Remove and let sit for 24±2hours (NPO) or 48± 4hours (X7R,X5R,Y5V ,Z5U)at room temperature, then measure.	Dielectric	NPO	X7R X5R	Y5V/Z5U		
			Apperance	No defect				
			Capacitance Change	<±5% or ±0.5pF	±12.5%	±30%		
			DF(or Q)	C>30pF : Q ≥350 10pF≤ C ≤350pF Q≥275+5C/2 C<10pF: Q≥200+10C	Vr=50V~4KV DF≤7.0% Vr=25V/16V DF≤11% Vr=10V DF≤13% Vr=6.3V DF≤15%	Vr≥25V, 10%,max Vr=16V, 13%,max Vr=10V, 16%,max Vr=6.3V DF≤18.0%		
			IR	More than 1G Ω or 50Ω F (Whichever is Smaller)				
			Dielectric Streghth	No failure				
14	Storage	Store all capacitors indoors at temperature of 5~35℃. Humidity<75%. They are warranted for a period of 2 years from the date of manufacture.						