

## **Performance and Test Methods**

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Item		Performance	Test Methods and Conditions				
Withstanding Voltage		No damage	Rated Voltage <dc400v< td="">         : 250% of rated voltage applied for 1-5sec.         Rated Voltage ≧DC400V         : 200% of rated voltage applied for 1-5sec.</dc400v<>				
Insulation Resistance		10000 MΩ or more	Rated voltage applied for 1 min. ±5sec.				
Capacitance Temperature Characteristics		Capacitance Change Rate CG:0±30ppm/°C B:±10%	The maximum capacitance change rate within the rated temperature range (#) , 20°C as a reference.				
		E:+20, -30% E:+20, -55% F:-30, -80%	# CG, R		-	B, D, E, F, S, SL	
			Temp.	+125°C	)	+85°C	
		R:±15% S:±22% SL:+350∼−1000ppm/°C	Maximum Operation Temp.	-55°C		-25°C	
Solderability (Terminal)		75% or more of the immersed area shall be covered with new solder.	Soldering Temp.: 230°C Immersion Time: 3±1 sec. Type of Solder: H63A Flux: Rosin nethanol				
Tensile Strength of Termination		No particular issue	Use nuts and fasten by torques which are specified in table below.				
			Type No.		Fastening Torque		
			FTA30, FTB30, FTA32		0.294N•m		
			FTT30		0.294N•m		
			FTA30, FTP30 FTA41 FTA4D		0.490N m		
			FTT4C		0.392N·m		
			FTP40, FTT40, FTT41		0.588N•m		
			FTA5B, FTA5C, FTB50		0.588N•m		
			FTP82		0.735N•m	i5N∙m	
Lead Bending Strength		No particular issue	<ul> <li>(1) Bending 45° angle, then bending to original place</li> <li>(2) Bending 45° angle on opposite direction, then bending to original place</li> </ul>				
Lead Pull Strength		No particular issue	Fasten the screw, and pull the lead wire with static load 2.0 $\pm$ 0.3kg for 10 $\pm$ 1 sec.				
Vibrations		No particular issue	Vibrate to X, Y, Z direction each for 2 hours Frequency: 10–55Hz Cycle: 1.5mm p-p Cycle of Frequency Change: 1 min.				
	Visual	No remarkable change	Lead Length for Immersion: 3.0±1.0mm				
Soldering Heat Resistance	Capacitance Change Rate	Within ±15%	Dipping Time: 10 sec. Measurement: after 4-24 hours left Soldering Temp.: 300±3°C				Solder
	Dissipation Factor	3.5% or less					
	Resistance	5,000MΩ or more					
Temperature Cycle	Visual	No remarkable change	The cycle specified on the	1 Minimum	Operation Tem	n 30 min	
	Capacitance Change Rate	Within ±20%	Leaving a sample under	2 Room Te	mp.	5 min.	
	Dissipation Factor	5% or less	then measuring electric a characteristics.	Temp.	n Operation	50 min.	
	Insulation Resistance	1,000MΩ or more	4 Room Temp.				5 min.
Life Test at High Temperature Load	Visual	No remarkable change	Put the sample in the eva	aluation	tank which is n	naximum tempe	rature ±3℃,
	Capacitance Change Rate	Within ±20%	sample out of evaluation tank, and leave in the room temperature for 4-24 hours, and measure the electrical characteristics.				
	Dissipation Factor	5% or less					
	Insulation Resistance	1,000MΩ or more					
Humidity Load Test	Visual	No remarkable change	Put the sample in the evaluation tank which the temperature is $40 \pm 2^{\circ}$ C and the relative humidity is 90-95%, then apply rated voltage for 500±12 hours. After that, take the sample out of the tank, then leave in the room temperature for 4-24 hours, and measure the electrical characteristics.				
	Capacitance Change Rate	Within ±20%					
	Dissipation Factor	5% or less	-				
	Insulation Resistance	1,000MΩ or more					