PRODUCT SPECIFICATION

【1. SCOPE】
This specification covers the 2.5mm BOARD-IN CONNECTOR series.

【2. PRODUCT NAME AND PART NUMBER 】

Product Name	Part Number
Terminal Housing	50097-8*00 51035-**00

**:Number of Circuits
Refer to the attached drawing.

【3. RATINGS AND APPLICABLE WIRES】

Item	Standard		
Rated Voltage (MAX.)	250 V		[AC (rms) / DC] Insulation O.D.: φ2.1mm MAX.
Rated Current (MAX.) and Applicable wires	KV 0.2 AWG.#24	2.0 A*1	
	KV 0.3 AVS 0.3 AWG.#22	3.0 A*1	
	KV 0.5 AVS 0.5 AWG.#20	4.0 A*1	
Ambient Temperature Range	-40℃ ～ +105℃*2		

*1 : In case of f;powing MAX.current ,dimensions size of land and pattern on P.C.B. should be considerd.
*2 : Including terminal temperature rise.

【4. PERFORMANCE】
4-1. Electrical Performance:

Item		Test Condition	Requirement
4-1-1	Insulation Resistance	Apply 500V DC between adjacent terminal or ground. (Based upon JIS C5402 5.2/MIL-STD-202 Method 302 Cond.B)	1000MΩ MIN.
4-1-2	Dielectric Strength	Apply 1000V AC for 1 minute between adjacent terminal or ground. (Based upon JIS C5402 5.1/MIL-STD-202 Method 301)	No Breakdown
4-1-3	Contact Resistance on Crimped Portion	Crimp the applicable wire on to the terminal, measure by dry circuit, 20mV MAX., 10mA.	5mΩ MAX.

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4-2. Mechanical Performance: 50097/51035

Item		Test Condition	Requirement	
4-2-1	Insertion and Withdrawal Force (To PCB.)*3	Insert and withdraw at the speed rate of 25±3mm/ minute to P.C. Board.	Insertion	1.5 Kgf MAX.
			With-drawal	0.1 Kgf MIN.
4-2-2	Crimping pull Out Force	Fix the crimped terminal, apply axial pull out force on the wire at the speed rate of 25±3mm/minute. (Based upon JIS C5402 6.8)	KV 0.2 AWG.#24	3.0 Kgf MIN.
			KV 0.3 AVS 0.3 AWG.#22	4.0 Kgf MIN.
			KV 0.5 AVS 0.5 AWG.#20	6.0 Kgf MIN.
4-2-3	Terminal/ Insertion Force	Insert the crimped terminal into the housing.	1.5 Kgf MAX.	
4-2-4	Terminal/ Housing Retention Force	Apply axial pull out force at the speed rate of 25±3mm/ minute on the terminal assembled in the housing.	1.5 Kgf MIN.	

*3 : MX-PCB-3(φ1.0,1.6t,Drill Hole)is in general use.

4-3. Environmental Performance and Others:

Item		Test Condition	Requirement	
4-3-1	Temperature Rise	Carrying rated current load. (Based upon UL 498)	30℃ MAX.	
4-3-2	Heat Resistance	105±2℃, 96 hours (Based upon JIS C0021/MIL-STD-202 Method 108A Cond.A)	Appearance	No Damage
			Contact Resistance On Crimped Portion	10mΩ MAX.
4-3-3	Cold Resistance	-40±3℃, 96 hours (Based upon JIS C0020)	Appearance	No Damage
			Contact Resistance On Crimped Portion	10mΩ MAX.

Item		Test Condition	Requirement	
4-3-4	Humidity	Temperature: 60±2℃ Relative Humidity: 90～95% Duration: 96 hours (Based upon JIS C0022/MIL-STD-202 Method 103B Cond.B)	Appearance	No Damage
			Dielectric Strength	Must meet 4-1-2
			Insulation resistance	100MΩ MIN.
			Contact Resistance On Crimped Portion	10mΩ MAX.
4-3-5	Salt Spray	48±4 hours exposure to a salt spray from the 5±1% solution at 35±2℃. (Based upon JIS C5028/MIL-STD-202 Method 101D Cond.B)	Appearance	No Damage
			Contact Resistance On Crimped Portion	10mΩ MAX.
4-3-6	SO_2 Gas	24 hours exposure to 50±5 ppm. SO_2 gas at 40±2℃.	Appearance	No Damage
			Contact Resistance On Crimped Portion	10mΩ MAX.
4-3-7	NH_3 Gas	40 minutes exposure to NH_3 gas evaporating from 28% Ammonia solution.	Appearance	No Damage
			Contact Resistance On Crimped Portion	10mΩ MAX.
4-3-8	Solder-ability	Soldering Time: 3±0.5 sec Solder Temperature: 230±5℃	75% of immersed area must show no voids, pin holes	
4-3-9	Resistance to Solder-ing Heat	Soldering Time: 5±0.5 sec Solder Temperature: 260±5℃	No Damage	

【5. PRODUCT SHAPE, DIMENSIONS AND MATERIALS】
Refer to the drawing.