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### 1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

### 2. APPLICABLE STANDARDS:

Methods for test of connectors for electronic equipment

MIL - STD - 202 MIL - STD - 1344 Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CI23 Series

### 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings

5. MATERIALS See attached drawings

### 6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED: <u>Eisley</u> APPROVED: <u>Eisley</u> VERIFIED: <u>Karen</u>.



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# 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than $1000~\text{M}\Omega$

## 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#22~#28
8.2	Terminal crimp Tensile	When crimped AWG#22 size wire	More than 5.0 Kgf
	strength	When crimped AWG#24 size wire	More than 3.0 Kgf
		When crimped AWG#26 size wire	More than 2.0 Kgf
		When crimped AWG#28 size wire	More than 1.3 Kgf
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 600 gram
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 2.5 Kgf
8.5	Single contact insertion force	Measure force to insertion using 0.64 mm square pin at speed 25± 3 mm per minute	700 gram max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 0.64 mm square pin at speed 25± 3 mm per minute	40 gram min.
8.7	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance:
			Less than twice of initial
8.8	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 1.0 Kgf



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## 9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
9.1	Temperature rise	Then carried the rated current	30°C max.	
9.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.	
9.3	Solderability	Soldering time: 5 ± 0.5 second Soldering pot: 230 °C	Minimum: 90% of immersed area	
9.4	Resistance to soldering heat	Soldering time: 5 ± 0.5 second Soldering pot: 230 °C	No damage	
9.5	Heat aging	85 ± 2°C , 96 hours	No damage	
9.6	Humidity	$40 \pm 2^{\circ}\text{C}$ , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3	
9.7	Temperature cycling	One cycle consists of:  (1)-55 +0 °C, 30 min.  (2)Room temp. 10-15 min.  (3) 85 +3 °C, 30 min.  (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial	
9.8	Salt spray	Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial	

10. AMBIENT TEMPERATURE RANGE: -25 to +85°C