

ENGINEERING. DEPT.	PRODUCT SPECIFICATION For CI10 Series Connector System	SPEC.NO.:	SPCI154A
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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:

MIL - STD - 202	Methods for test of connectors for electronic equipment
MIL - STD - 1344	Test methods for electrical connectors
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO: For CI10 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings



REVIEWED : Eisley APPROVED : Eisley VERIFIED : Hank .

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6. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
6.1	Rated current and voltage		Rated Voltage: 250V AC/DC Rated Current: 3A (AWG#22) 2A (AWG#24) 1A (AWG#26) 0.7A (AWG#28)
6.2	Contact resistance	Dry circuit of DC 20 mV max. , 10 mA max.	Less than 10 mΩ
6.3	Dielectric strength	When applied AC 800 V 1 minute between adjacent terminal	No change
6.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ

7. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Wire size	Specified wire size	Accepts AWG#22~#28
7.2	Terminal crimp Tensile strength	When crimped AWG#22 size wire When crimped AWG#24 size wire When crimped AWG#26 size wire When crimped AWG#28 size wire	More than 5.0 Kgf More than 3.0 Kgf More than 2.0 Kgf More than 1.3 Kgf
7.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 1.0 Kgf
7.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 1.5 Kgf
7.5	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 1.0 Kgf
7.6	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal	Contact resistance: Less than 20 mΩ

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8. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Temperature rise	Then carried the rated current	30°C max.
8.2	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.
8.3	Shock	50G, 3 strokes in each X,Y,Z axials (Based upon JIS C0041)	Appearance: No damage Discontinuity: 1 micro second max.
8.4	Heat aging	105 ± 2°C , 96±4 hours	No damage Contact resistance: Less than 20 mΩ
8.5	Cold aging	-40 ± 3°C , 96±4 hours	No damage Contact resistance: Less than 20 mΩ
8.6	Humidity	60 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than 20 mΩ
8.7	Temperature cycling	5 cycle consists of : (1) -40 +0/-3 °C , 30 min. (2) Room temp. 10-15 min. (3) 105 +3/-0°C , 30 min. (4) Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than 20 mΩ

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	ITEM	TEST CONDITION	REQUIREMENT
8.8	Salt spray	Temperature: $35 \pm 2^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours Measurement must be taken after water rinse	No damage Contact resistance: Less than $20\text{ m}\Omega$
8.9	Solder ability	Soldering time: 3 ~ 5 seconds Soldering pot: $245 \pm 5^{\circ}\text{C}$	Minimum: 95% of immersed area
8.10	Hand Soldering Method	Use a soldering iron that has a sufficient head capacity and high stability of temperature. The tip of the iron should be shaped so as not to touch the part body directly. Temperature : $380 \pm 5^{\circ}\text{C}$ 3~5sec.	No damage
8.11	Resistance to soldering heat	Lead-Free Process: Soldering time: 20 second Max. Soldering pot: $250 \sim 260^{\circ}\text{C}$ Refer Reflow temperature profile(10.1)	No damage

9. AMBIENT TEMPERATURE RANGE: -25 to $+85^{\circ}\text{C}$

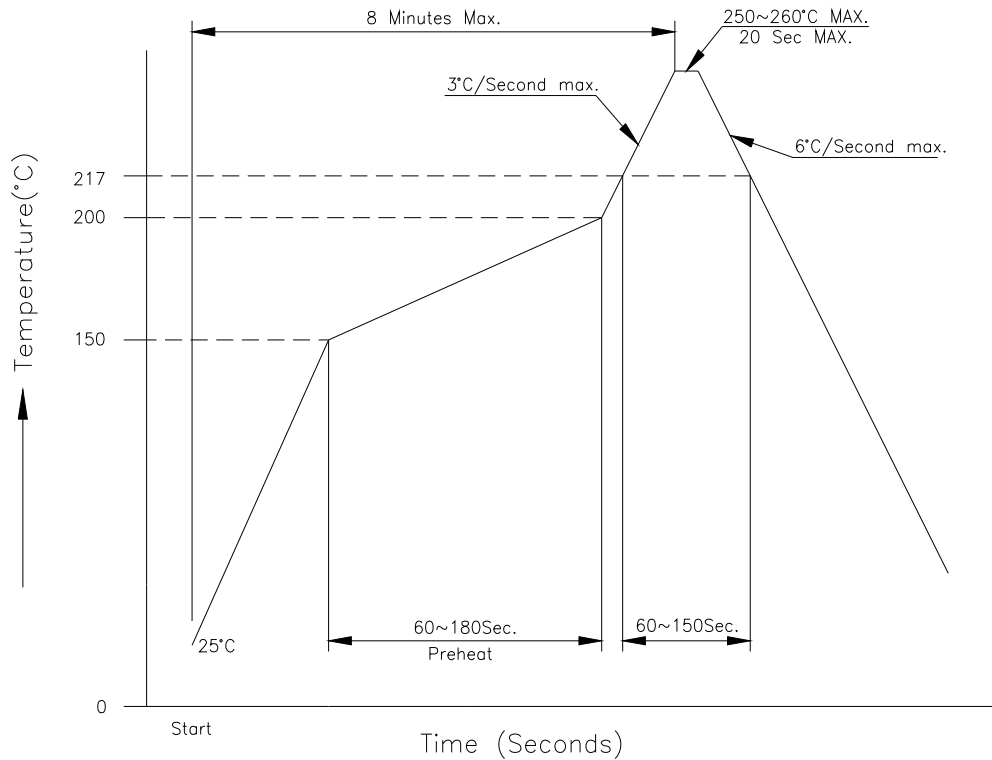
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10. Reflow soldering method:

10.1 Refer Reflow temperature profile



11. Mating and Un-mating Force:

11.1 WITHOUT LATCH TYPE HOUSING

PIN No.	Mating (kgf max.)	Un-mating (kgf min.)
2	1.50	0.05
10	3.50	0.45