

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CI01 Latch Type Series Connector System	SPEC.NO.: SPCI057C
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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

3. APPLICABLE SERIES NO: CI01 With Latch Type Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.8 mm (.031") ~ 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED : David APPROVED : Eisley VERIFIED : Karen .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		2A 250V AC/DC (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 800 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 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Wire size	Specified wire size	Accepts AWG#24~#30
8.2	Terminal crimp Tensile strength	When crimped AWG#24 size wire When crimped AWG#26 size wire When crimped AWG#28 size wire When crimped AWG#30 size wire	3.0 Kgf (29.4 N) Min. 2.0 Kgf (19.6 N) Min. 1.3 Kgf (12.7 N) Min. 0.8 Kgf (7.8 N) Min.
8.3	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	0.6 Kgf (5.9 N) Max.
8.4	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	1.5 Kgf (14.7 N) Min.
8.5	Single contact insertion force	Measure force to insertion using 0.50 mm square pin at speed 25± 3 mm per minute	0.7 Kgf (6.9 N) Max.
8.6	Single contact withdrawal force	Measure force to withdrawal using 0.50 mm square pin at speed 25± 3 mm per minute	0.10 Kgf (0.98 N) Min.
8.7	Durability	Connector shall be subjected to 30 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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	ITEM	TEST CONDITION		REQUIREMENT	
8.9	Mating and Unmating force(Remove Latch)	Speed 25 ± 3 mm per minute		Mating (Max.)	Unmating (Min.)
			10PIN	6.0 kgf	1.4 kgf
			12PIN	6.0 kgf	1.4 kgf
			14PIN	8.0 kgf	2.0 kgf
			16PIN	10.0 kgf	2.5 kgf
8.10	Lock Force	The unmating force is measured with only base without terminal		More than 6.0 Kgf	

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	Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: $230 \pm 5^{\circ}\text{C}$ Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^{\circ}\text{C}$	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Tin-Lead Process for DIP Type: Soldering time: 5 ± 0.5 second Soldering pot: $260 \pm 5^{\circ}\text{C}$ Tin-Lead Process for SMT Type: Refer Reflow temperature profile(12.1) Lead-Free Process for SMT Type: Refer Reflow temperature profile(12.2)	No damage
9.5	Heat aging	$105 \pm 2^{\circ}\text{C}$, 96 hours	No damage

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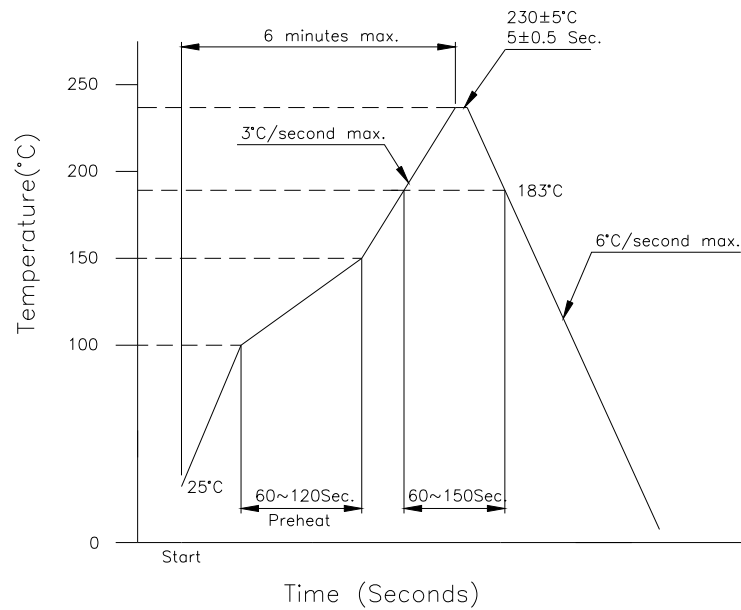
	ITEM	TEST CONDITION	REQUIREMENT
9.6	Humidity	40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
9.7	Temperature cycling	One cycle consists of : (1)-55 ⁺⁰ ₋₃ °C , 30 min. (2)Room temp. 10-15 min. (3) 85 ⁺³ ₋₀ °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 + 105°C

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11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste

