

**ENGINEERING** DEPT.

## PRODUCT SPECIFICATION

1.27mm Pitch Male & Female Connector

SPEC.NO.: SPCA009D

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1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

2. APPLICABLE STANDARDS:

MIL - STD - 202 Methods for test of connectors for electronic equipment
MIL - STD - 1344 Test methods for electrical connectors

MIL - STD - 1344

Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CA30/CA31/CA32 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings

5. MATERIALS See attached drawings

6. ACCOMMODATED CABLE AND P.C. BOARD:

6.1 Thickness: 1.6mm(.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED: APPROVED: VERIFIED: Zisley



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## 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		1.5 A 230V AC/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 10 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 100 V between adjacent terminal or ground	More than $1000 \text{ M}\Omega$

## 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Pin retention force	Push pin form insulator base at speed 25±3 mm per minute	0.5 Kgf. min./ per contact
8.2	Mating Force	Insertion force at speed 25±3 mm per minute	500 gram max./per contact
8.3	Un-Mating Force	Withdrawing force at speed 25±3 mm per minute	100 gram min./per contact
8.4	Cable Retention Force	Cable withdrawing force at speed 25±3 mm per minute	1.0 kgf min./ Per contact

## 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: 1micro second max.
9.3	Solderability	Tin-Lead Process Soldering time: $5 \pm 0.5$ second Soldering pot: $230 \pm 5$ °C Lead-Free Process Soldering time: $3 \pm 0.5$ second Soldering pot: $260^{+0}_{-5}$ °C	Minimum: 90% of immersed area



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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	Tin-Lead Process (TMD or SMD Type)  Soldering time: 5 ± 0.5 second  Soldering pot: 260 <sup>+0</sup> °C  - 5  Lead-Free Process (SMD Type)	No damage
9.5	Hand Soldering Method	Refer recommended IR temperature profile  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:  300±5 °C 3s	No damage
9.6	Heat aging	105 ± 2 °C , 96 hours	No damage
9.7	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
9.8	Temperature cycling	One cycle consists of:  (1) -40 +0 °C, 30 min.  (2)Room temp. 10-15 min.  (3) 105 +3 °C, 30 min.  (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.9	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: -40 to + 105°C