

# ENGINEERING

### **PRODUCT SPECIFICATION** 1.27mm Pitch Male & Female Connector

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DEPT.

# 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

## 3. APPLICABLE SERIES NO.: CA33/CA34/CA35 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 : <u>Alex</u> APPROVED : <u>David</u> VERIFIED : <u>Clark</u>.



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### 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage	CA33 Series	1.2 A 250V AC/DC
		CA34 Series	1.2 A 250V AC/DC
		CA35 SMT Vertical Type	1.2 A 250V AC/DC
		CA35 DIP Vertical Type	1.2 A 250V AC/DC
		CA35 DIP Right angle Type	1.2 A 250V AC/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 15 m $\Omega$
7.3	Dielectric strength	When applied AC 750 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 M $\Omega$

#### 8. MECHANICAL PERFORMANCE:

8.1	ITEM Pin retention force	TEST CONDITION Push pin form insulator base at speed 25±3 mm per minute	REQUIREMENT 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	Maximum Current at 105°C	105°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	Solder ability	Soldering time: 3 ± 0.5 second Soldering pot: 245 °± 5°C	Minimum: 90% of immersed area



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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	Lead-Free Process (SMD Type) Soldering time: 20 second Max. Soldering pot: 250~260°C Refer recommended IR temperature profile	No damage
9.5	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±5 °C 3s	No damage
9.6	Heat aging	105 ± 2°C , 96 hours	No damage
9.7	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
9.8	Temperature cycling	One 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 twice of initial
9.9	Salt spray	Temperature: $35 \pm 3 \circ C$ Solution: $5 \pm 1 \%$ Spray time: $48 \pm 4$ 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



