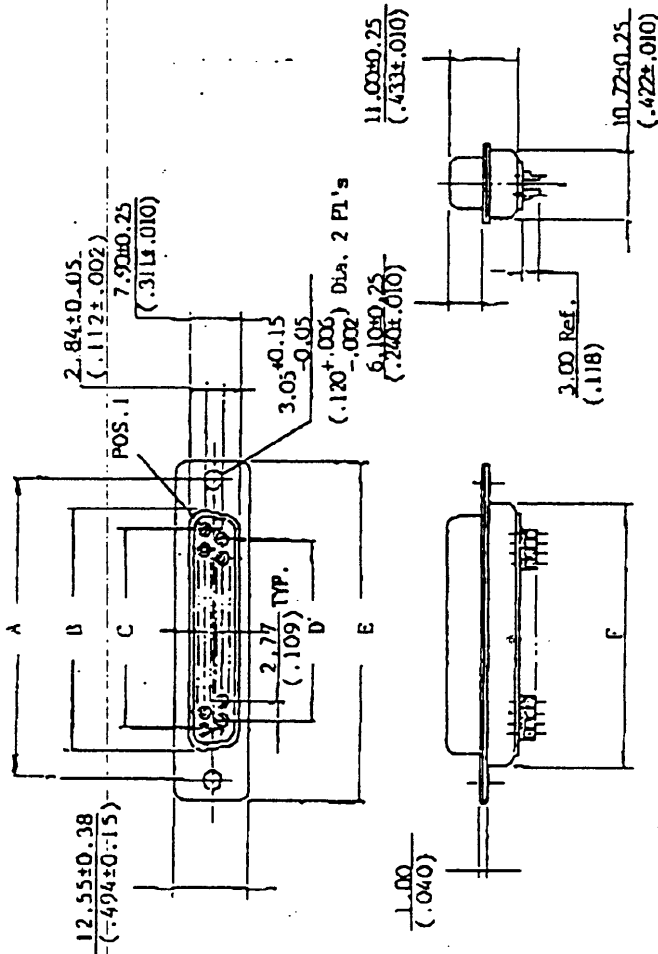


698-120



PART NUMBER

850 - 025 SS - 4 0 1 S
(1) (2) (3) (4) (5) (6) (7)

1. SERIES

850 : D-SUB SOLDER CUP CONNECTOR

5. CONTACT FINISH

- 0-GOLD FLASH OVER 50U" NICKEL
- 2-15U" GOLD OVER 50U" NICKEL
- 3-30U" GOLD OVER 50U" NICKEL

6. METAL SHELL FINISH

- 0-WITHOUT METAL SHELL (ALL PLATED TYPE)
- 1-TIN PLATED SHELL WITH GROUNDING INDENTS(INDENTS ON PLUG ONLY)
- 2-YELLOW CHROMATE OVER ZINC SHELL
- 3-YELLOW CHROMATE WITH GROUNDING INDENTS
- 4-TIN PLATED SHELL WITHOUT GROUNDING INDENTS

2. NUMBER OF CONTACTS
009-9 POSITIONS - 648106
015-15 POSITIONS - 648118
025-25 POSITIONS - 648120
037-37 POSITIONS - 648131
050-50 POSITIONS

3. CONTACT TYPES

- PM: MACHINED CONTACT (PLUG)
- SM: MACHINED CONTACT (RECEPTACLE)
- PS: STAMPED CONTACT (PLUG)
- SS: STAMPED CONTACT (RECEPTACLE)

4. COLOR CODES

- 1-BLUE
- 2-GRAY
- 3-BLACK
- 4-WHITE

7. MOUNTING TYPE

- S: STANDARD HOLE
- T: #4-40 NUT HEIGHT 5.0 STAND OFF
- B: #3.20 THRU HOLE, HEIGHT 5.0 STAND OFF

SPECIFICATIONS:

- CURRENT RATING: 5 amp
- INSULATION RESISTANCE: 5000 MΩ MIN. AT 500V DC
- DIELECTRIC WITHSTANDING VOLTAGE: AC 1000V MIN. (FOR 1 MINUTE)
- CONTACT RESISTANCE: 15 mΩ MAX. MATED
- OPERATING TEMPERATURE: -55°C - +105°C
- INSULATOR MATERIAL: P.B.T. & GLASS-FIBER REINFORCED UL 94V-0
- CONTACT MATERIAL: PHOSPHOR BRONZE, GOLD OVER NICKEL IN CONTACT AREA, TIN PLATED SOLDER CUP
- SHELL: STEEL, TIN OR ZINC PLATED

850037S	63.50 (2.500)	54.84 (2.159)	49.86 (1.963)	47.09 (1.854)	69.40 (2.732)	57.71 (2.272)
850025S	47.04 (1.852)	38.38 (1.511)	33.24 (1.309)	30.47 (1.200)	53.09 (2.090)	41.30 (1.625)
850015S	33.32 (1.312)	24.66 (.971)	19.18 (.755)	16.44 (.647)	39.10 (1.539)	27.51 (1.083)
850009S	24.99 (.984)	16.33 (.643)	10.96 (.431)	8.22 (.324)	30.89 (1.216)	19.28 (.759)
PART-NO.	A ± 0.13 (.005)	B ± 0.25 (.010)	C ± 0.13 (.005)	D ± 0.13 (.005)	E ± 0.38 (.015)	F ± 0.25 (.010)

PART NAME
850 SERIES
SOLDER CUP D-SUB
CONNECTOR (FEMALE)

英達股份有限公司

EDA INCORPORATION

DIMENSION: mm
Inch

DATE: 77.11.10
DRAWN BY: J. K. Lee
CHECKED BY: J. K. Lee

W. ORIGIN NO.
E-00353

W. SHEET NO. 1

850-A-06/21



奕達股份有限公司
EDA INCORPORATED

NO.15 KUNG SHING STREET
SHULIN, TAIPEI, TAIWAN R.O.C.
TEL : (02)6891404
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台北縣樹林鎮工興街 15 號

To: Loretta

C. QUALITY GENERAL SPECIFICATIONS

C.1 VISUAL INSPECTION

C.2 CONTACT RESISTANCE

C.3 CONTACT ENGAGING AND SEPARATING FORCE

C.4 MATING AND UNMATING FORCE

C.5 LIFE TEST

C.6 CORROSION

C.7 INSULATION RESISTANCE

C.8 ENVIRONMENTAL TEST

C.9 DAMP HEAT

C.10 SOLDERABILITY TEST

C.11 RETENTION FORCE

P3/9

C. QUALITY GENERAL SPECIFICATIONS

C-01 Visual inspection

Connectors shall not have visible defects and the trade-mark shall be clearly read. After the usual handling the trade-mark shall be still legible. The dimensions and contact plating thickness, as well as the direction stated in enclosed sheets, shall be completely respected. Connectors and contacts shall be thoroughly examined to insure that they have been properly assembled. Visual inspection shall be performed through out the test program to note any changes in material.

C-02 Contact resistance

It is made and tested as a voltage drop between the terminal of each mated pair of contact.

C-2-1 Contact resistance (Rated current: 1A) $\leq 15\text{m}\Omega$

C-2-2 The contact resistance (Dry circuit) is measured with the voltampermeter method.

The open circuit voltage shall be 20mV and the test current shall not be higher than 10mA in both ways. The contact

PH/a

C-03 Contact engaging force and separating force

Socket contacts shall be inserted by a 0.80mm (0.031") diameter lapped and hardened steel pin three times running and measured the force to engage during third insertion. Then, engaging and separating by a 0.75mm (0.030") diameter lapped and hardened steel pin in same socket as above and measure the force to separate. The insertion depth is 3.6mm (0.140") measured from the front of socket contact. The engaging and separating force for socket contact shall be respectively :

Engaging force $\leq$ 170 gr.

Separating force $>$ 36 gr.

C-04 Mating and unmating force

The mating and unmating force for the connector shall be specified in accordance with the following :

NO OF CONTACT	(KGF.F MAX.) NO OF CONTACT	(MAX.)(MIN.) UNMATING FORCE	
09	4.55	2.73	0.34
15	7.73	4.55	0.45
25	12.73	7.73	0.80
37	17.73	10.91	1.14
50	22.30	13.64	1.48

P5/9

C-05 Life test

Connectors undergo 200 cycles insertion and withdrawal cycle of a $\phi 1.04$ mm lapped and hardened steel pin gauge. No visible mechanical damages should appear on the contact at the end of test.

Contact resistance (1A) : $\leq 20 \text{ m}\Omega$

Engaging force : with a $\phi 0.80$ mm engaging $\leq 170 \text{ gr.}$

Separating force of a $\phi 0.75$ mm minimum gauge $\geq 36 \text{ gr.}$

C-06 Corrosion

After having undergone the life test, the connectors will undergo a 48-hour saltern-fog test, according to the instructions of MIL-STD-202, 101 method, B condition. At the end of the test, the connectors will undergo a low-voltage resistance test, according to the instructions stated in the previous point C-2. The contact resistance shall not be higher than $20 \text{ m}\Omega$

C-07 Insulation resistance

The insulation resistance is measured with $500 \text{ V} \pm 10$

applied for 1 minute between :

- . Each contact and all the others connected to each other.
- . The two series of contacts connected in turn.

The resulting measured value shall be $\geq 5000 \text{ } \Omega$

C-08 Environmental test

C-8-1 The connectors undergo the following tests, according to

IEC - 68 specs :

- . Dry heat - degree 4 (+ 100 °C)
- . Wet heat - 1st cycle (+ 55 °C - 98 % U.R.)
- . Cold - degree 4 (- 55 °C)
- . Wet heat - 2nd cycle (+ 55 °C - 98 % U.R.)

C-8-2 At the end of the test the connector will be checked :

. Contact resistance (at 1A) : $\leq 20 \text{ } \Omega$

. Insulation resistance : $\geq 1000 \text{ } \Omega$

. Dimensions checking :

a) Maximum length ————

b) Longitudinal opening

c) Transversal opening

d) Arrow ————

see enclosed drawings

P7/9

C-09 Damp heat

Connector undergo the permanent wet heat test according to IEC-68 specs, which coincide with degree 5 (40°C - 95% U.R. 21 days). At the end of the test the checking stated in the previous C-8-1 will be repeated.

C-10 Solderability test

After a storage for 240 hours at + 105°C the connectors shall be made the solderability test. It shall be submitted for 60 sec, at 120°C and then dipped the pins, until a distance of 1.6mm from the housing, in the Sn/Pb alloy (90% Sn - 10% Pb) at a temperature of $260 \pm 5^\circ\text{C}$ for 3 seconds. This operation shall be repeated 5 time consecutively. After this test it has to measured :

- . Insulation resistance as in par. ----- C.7
- . Contacts resistance as in par. ----- C.2
- . Visual inspection as in par. ----- C.1

with particular attention to the pins. They must be complete coated by an even layer of Sn/Pb.

P8/9

C-11 Retention force

The contact are plugged into the housing then pull the contact by a force to separate the contact from housing. The contact in the housing don't have any displacement retention force $\geq 2 \text{ Kg}$.

pg 9