

MOLEX

PRODUCT SPECIFICATION

MOLEX KOREA

2.36 CONNECTOR (A/B TYPE)

| | | | |
|---|----------------------------------|---|---------------------|
| B | REVISED (ECN95-095) | W. Y. YANG | 1995.09.14 |
| A | NEW RELEASED (ECN94-004) | W. Y. YANG | 1994.06.07 |
| REV | REVISION RECORD | BY | DATE |
| PRODUCT SPECIFICATION : 2.36 CONNECTOR (A/B TYPE) - 1/2/3/4/5/6P | | SHEET NO. 1 OF 4 | REV. B |
| WRITTEN BY: W. Y. YANG | CHECKED BY: <i>b. k. Choi</i> | APPROVED BY: <i>[Signature]</i> 96.6.22 | DATE: 1995.09.14 |

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[1. SCOPE]

This product specification covers general requirement for product performance and test condition of 2.36 connector (A/B type) series for the use of termination on p.c.board.

[2. PRODUCT DESCRIPTION]**2.1 PRODUCT NAME AND PART NUMBER****2.1.1 HOUSING**

| Product name | Part no. | Pitch | Material |
|-------------------------|------------|--------------------------------|---|
| 2.36 Housing(A type)-1P | 35136-01*0 | 10.0/8.0mm centerline pitch | *: 0 (Noryl UL94V-1) 1 (Nylon66 UL94V-0) |
| 2.36 Housing(A type)-2P | 35136-02*0 | | |
| 2.36 Housing(A type)-3P | 35136-03*0 | | |
| 2.36 Housing(A type)-4P | 35136-04*0 | | |
| 2.36 Housing(A type)-5P | 35136-05*0 | | |
| 2.36 Housing(A type)-6p | 35136-06*0 | | |
| 2.36 Housing(B type)-2P | 35137-02*0 | 8.0/6.0mm centerline pitch | |
| 2.36 Housing(B type)-4P | 35137-04*0 | | |
| 2.36 Housing(B type)-6p | 35137-06*0 | | |

2.1.2 TERMINAL

| Product name | Part no. | Wire range | Insul. dia | Mat'l/Finish |
|------------------------|------------|-------------|------------|-------------------------|
| 2.36 Pin Receptacle | 35716-0110 | AWG #24-#20 | 1.5-2.7mm | Tin-plated brass |
| 2.36 Pin Receptacle | 35716-0111 | | | Tin-plated phos. bronze |
| 2.36 Pin Receptacle(L) | 35716-0310 | AWG #20-#18 | 2.0-2.8mm | Tin-plated brass |

2.1.3 WAFER ASSEMBLY (STRAIGHT WAFER)

| Product name | Part no. | Pitch | Material |
|-------------------------|------------|--------------------------------|--|
| 2.36 Wafer ass'y (A)-1P | 35309-0110 | 10.0/8.0mm centerline pitch | -Wafer Base: Nylon66 UL94V-0 -Pin: Brass (Tin-plated) |
| 2.36 Wafer ass'y (A)-2P | 35309-0210 | | |
| 2.36 Wafer ass'y (A)-3P | 35309-0310 | | |
| 2.36 Wafer ass'y (A)-4P | 35309-0410 | | |
| 2.36 Wafer ass'y (A)-5P | 35309-0510 | | |
| 2.36 Wafer ass'y (A)-6p | 35309-0610 | | |
| 2.36 Wafer ass'y (B)-2P | 35310-0210 | 8.0/6.0mm centerline pitch | |
| 2.36 Wafer ass'y (B)-4P | 35310-0410 | | |
| 2.36 Wafer ass'y (B)-6p | 35310-0610 | | |

[3. RATINGS]

- 3.1 Current rating : 10A AC/DC
 3.2 Voltage rating : 250V AC/DC
 3.3 Temperature range : -25°C ~ +85°C
 3.4 Applicable P.C.B thickness : 1.6mm

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[4. PERFORMANCE SPECIFICATION]**4.1 ELECTRICAL PERFORMANCE**

| ITEM | TEST CONDITION | REQUIREMENT |
|-----------------------|---|-------------------|
| Contact resistance | Mate connector with a maximum voltage of 20mV and a current of 10mA. | 10 milliohms max. |
| Insulation resistance | Mate connector with a voltage of 500V DC between adjacent terminals and between terminals to ground. | 100 megohm min. |
| Dielectric strength | Mate connector with a voltage of 1500V AC for 1 minute between adjacent terminals and between terminals and ground. | No breakdown |

4.2 MECHANICAL PERFORMANCE

| ITEM | TEST CONDITION | REQUIREMENT | |
|--|--|---|----------------------|
| Wire pullout force (axial) | Apply on axial pullout force on a wire at a rate of 25±6mm per minute. | Wire size | Pullout force (min.) |
| | | AWG #24 | 3.1 kgf |
| | | AWG #22 | 5.1 kgf |
| | | AWG #20 | 7.1 kgf |
| Connector insertion and extraction force | Housing and wafer shall be steadily inserted and extracted at a rate of 25±6mm per minute. | Initial (maximum) insertion force (kgf) 35716-0110, 35716-0310 | |
| | | 1P : 2.5 | 4P : 7.0 |
| | | 2P : 4.0 | 5P : 8.0 |
| | | 3P : 5.5 | 6P : 9.0 |
| | | 35716-0111 | |
| | | 1P : 3.3 | 4P : 9.1 |
| | | Initial (minimum) extraction force (kgf) | |
| | | 1P : 0.6 | 4P : 3.0 |
| | | 2P : 1.2 | 5P : 3.5 |
| | | 3P : 2.0 | 6P : 4.0 |
| Terminal retention force in hou' | Axial pullout force on the terminal in the housing at a rate of 25±6mm per minute | 5 kgf min. | |
| Durability | Mate connectors up to 30cycles repeatedly at a rate of 10cycles per minuts. | Contact resistance: 20 milliohm max. | |

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| ITEM | TEST CONDITION | REQUIREMENT |
|-----------|--|---|
| Vibration | Amplitude : 1.5mm peak to peak Sweep : 10-55-10 hertz in one minute Duration : 2 hours in each X-Y-Z axis Applying current : 1mA DC | * Appearance : No damage * Contact resistance: 20 milliohm max. * Dielectric strength: No breakdown |

4.3 ENVIRONMENTAL PERFORMANCE

| ITEM | TEST CONDITION | REQUIREMENT |
|----------------------------|--|--|
| Humidity steady state | Mate connector and expose to a temperature of $65\pm 2^{\circ}\text{C}$ with a relative humidity of 90-95% for 96hours | * Appearance: No damage * Contact resistance: 10 milliohm max. * Dielectric strength: No breakdown |
| Temperature rise | Mate the connector and measure the contact temperature at the rated current load. | Maximum temperature of the terminal over ambient of 30°C |
| Solderability | Solser time : 3 ± 0.5 seconds solder temperature : $230\pm 5^{\circ}\text{C}$ | 90% of immersed area must show no voids, pin holes, etc. |
| Resistance to solder heats | Solser time : 3 ± 0.5 seconds solder temperature : $230\pm 5^{\circ}\text{C}$ | Appearance: No damage |
| Salt spray | Put the connector into the chamber at $35\pm 2^{\circ}\text{C}$ and spray 5% solution of Nacl for 48hours. | * Appearance: No damage * Contact resistance: 20 milliohm max. |

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