PRODUCT SPECIFICATION

FULL SHROUDED DUAL ROW HEADER, .100" GRID

1.0 SCOPE

This specification covers C-Grid® dual row shrouded header system on .100in (2.54mm) grid. The wafer (header) body has a full shroud (4 sided), a window on one (top) wall to accommodate latching and key slots on the opposite wall for added polarization. Retention pegs are designed for printed circuit board mounting.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Product Name	Product Number
Shrouded right angle mount dual row through hole header with pegs	74164 Series

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

The C-Grid® right angle shrouded headers are offered in circuit sizes from 6 circuits to 72 circuits in 2 circuit increments. Mating pins for this series are .025in (0.64mm) square and are available with tin or gold plating in the contact area. The solder tails are tin plated. Tail length and mounting pegs are configured to fit into a .062in (1.57mm) circuit board. The inside of shroud-to-mating pin clearance is .150in (3.81mm) at opposite ends of the connector (lengthwise). For further dimensional, material, plating and marking details, refer to the sales drawing(s) listed in section 3.0.

2.3 SAFETY AGENCY APPROVALS

UL File: TBD

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Document	Description
SD-74164-001	Sales Drawing, Shrouded Right Angle Mount Through Hole Dual Row Header with pegs
PK-70873-0019	Packaging Specification Right Angle Mount Through Hole Dual Row Header

4.0 RATINGS

4.1 VOLTAGE

250 Volts DC

4.2 CURRENT

2.5 Amps (DC) maximum

4.3 TEMPERATURE

Operating: - 40°C to + 105°C
Nonoperating: - 30°C to + 60°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Contact Resistance (Low Level)**	Mate connectors: apply a maximum voltage of **20** mV and a current of **100** mA.	**15** milliohms MAXIMUM [initial]
2	**Insulation Resistance**	Unmate & unmount connectors: apply a voltage of **500** VDC between adjacent terminals and between terminals to ground.	**1000** Megohms MINIMUM
3	**Dielectric Withstanding Voltage**	Unmate connectors: apply a voltage of **{two times the rated voltage plus 1500 volts}** VAC for **1** minute between adjacent terminals and between terminals to ground.	No breakdown; current leakage < **5** mA
4	**Temperature Rise**	Mate connectors: measure the temperature rise at the rated current after: **96** hours (**45** minutes ON and **15** minutes OFF per hour).	Temperature rise: **+30**°C MAXIMUM

5.2 MECHANICAL REQUIREMENTS (continued)

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	**Pin Retention Force (in Housing)**	Axial pullout force on the terminal in the housing at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	**17.79** N (**4** lbf) MINIMUM retention force
6	**Durability**	Mate connectors up to **{25** cycles for tin plating OR **50** cycles for gold plating**}** at a maximum rate of **10** cycles per minute prior to Environmental Tests.	**10** milliohms MAXIMUM (change from initial)

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	**Shock (Thermal)**	Mate connectors; expose to **10** cycles of: Temperature °C — Duration (Minutes) **-40 +0/-3 — 30** **+105 +3/-0 — 30**	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage
8	**Humidity (Steady State)**	Mate connectors: expose to a temperature of **40 ± 2°**C with a relative humidity of **95-100**% for 100 hours. Note: Remove surface moisture and air dry for **1** hour prior to measurements.	**10** milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at **500** VAC & Insulation Resistance: **1000** Megohms MINIMUM & Visual: No Damage

6.0 PACKAGING

Refer to section 3.0 for packging documents