2.54MM AND 2.50MM DUAL ROW OR SINGLE ROW (SMT/ VERTICAL/ RIGHT ANGLE) HEADER

1.0 SCOPE

This specification covers the performance requirements for 2.54mm & 2.50mm Dual Row or Single Row Header (SMT/ Vertical/ Right Angle)

2.0 PRODUCT DESCRIPTION

2.1 Product covered by this specification is for series 87454, 87797, 87891, 87897, 87897, 87898, 87911, 87914, 87920, 87937, 87938, 87938, 87939, 87950, 87951, 87952, 87957, 151015 and 151178.

2.2 For dimensions, materials & plating refer to the appropriate product drawings.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

The following documents are part of this specification to the extent specified herewith.
In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence.
In the event of conflict between the requirements of this specification and reference documents, this specification shall take the precedence.

MIL-STD-202	Test Methods for Electrical and Electronic Component Parts.
MIL-STD-1344	Test methods of Electrical Connector
ES-40000-5013	Connector Heat Resistance Specification

4.0 RATINGS

4.1 Voltage : 250V

4.2 Current : 3.0 Amp

4.3 Temperature
Operating: -55°C to + 105°C
Non-Operating: -55°C to + 105°C

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Insulation Resistance**	Test between adjacent contact at 500 V DC for 1 minute, (MIL-STD-1344 MTD 3001.1)	1000 Megaohms minimum
2	**Dielectric Strength**	Test between adjacent contact at 500VAC rms and 1 minute hold time.	No breakdown

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	**Pin Retention Force in Housing**	Push pin axially from housing at a rate of 12.7mm/min (0.50 inch/min)	0.85 Kgf min

5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	**Temperature Rise**	Apply DC to the header and measure contact temperature rise for 48 hours	30°C maximum temperature rise above ambient.
5	**Solderability**	Solder Time: 5 ± 0.5 sec. Solder Temperature: 245 ±5 °C	Soldertail should have 95% continuous new solder coating coverage (Apply to non-kinked soldertail only)
6	**Resistance to Soldering Heat (Wave Soldering)**	Sample mounted on PCB and subject to wave soldering. a)Temperature : 260 ±5 °C for 12 ± 2 Sec (High Temp. Thermoplastic) b)Temperature : 245 ±5 °C for 3Sec (Polyester Thermoplastic)	Appearance : No Damage
7	**Resistance to Solder Heat (Reflow) For SMT Series 87898, 87938, 87920, 87939, 151178, 151015**	Pass Jack through IR machine for 3 cycles of the following reflow profile: Average Ramp Rate 3°C/sec max. Preheat Temp. (Min.) 150°C Preheat Temp. (Max.) 200°C Preheat Time 60 – 180 sec Ramp to Peak 3°C/sec max. Time over liquidus (217°C) 60 – 150 sec Peak Temperature 260 +0/-5°C Time within 5°C of peak 20 – 40 sec. Ramp – Cool Down 6°C/sec max. Time 25°C to Peak 8 mins max.	Appearance : No Damage

6.0 PACKAGING

Product shall be packaged and protected against damage during handling, transportation and storage.

7.0 SURFACE MOUNT REFLOW TEMPERATURE PROFILE