1.0 SCOPE

This specification defined the product performance requirements for the Picoflex connector system.

2.0 PRODUCTION DESCRIPTION

90325-****	Header assembly, straight P.C. tail version
90715-****	Header assembly, with kinked P.C. tails and optional polarising pegs.
90779-****	Header assembly, high temperature thermoplastic material.
90327-****	Insulation displacement female assembly.
90327-9001	Insulation displacement female assembly with pull tab feature.
90584-****	Board-in insulation displacement assembly
90800-****	Header assembly right angle P.C. tail version.
90814-****	Header assembly SMT version.

3.0 APPLICABLE DOCUMENT AND SPECIFICATIONS

See sales drawings and any other sections of this specification for the relevant reference documents and specifications. In cases where this product specification differs from product drawings, the product drawings take precedence.

4.0 RATINGS

4.1 VOLTAGE

Maximum of 250 VAC/DC.

4.2 CURRENT

1.2A at +70°C

4.3 OPERATING TEMPERATURE

-40 °C to +105 °C.

5.0 PERFORMANCE

5.1 ELECTRICAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
Insulation resistance:	500V DC applied to adjacent circuits	1000 megohms **MINIMUM**
Dielectric withstanding voltage 750 VAC/1 minute.	750 VAC applied to adjacent circuits for 1 minute	No breakdown
Contact Resistance	20 mV maximum open circuit voltage. 100mA maximum test current.	15mOhms **MAXIMUM**

5.2 MECHANICAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
Insertion Force (per individual contact)	Insertion force tested by inserting standard gauge blade specified in section 7.0 Rate of insertion =25 ±6 mm/sec	1.7N maximum for initial insertion of Tin-Lead contact 1.1N maximum for initial insertion of Gold on Gold contact
Withdrawal Force (per individual contact)	Rate of withdrawal =25 ±6 mm/sec	Withdrawal force = 0.25N **Minimum**
Durability	1 durability cycle = 1 Mating & Unmating of the connector using Picoflex extraction tool or pull tab For Tin-Lead on Tin-Lead system Number of cycles = 30 (using extraction tool) For 0.76µm Gold on Gold system Number of cycles = 100 (using pull tab or extraction tool)	Allowable variation from initial insertion force value = 0.50N **Maximum** Change in contact resistance from initial value = 10mOhms **Maximum**
Shock	Acceleration = 50g Duration = 11 milliseconds per IEC 512-4, test condition 6c.	Change in contact resistance from initial value = 10mOhms Maximum Discontinuity = 1micro second. **Maximum**
Vibration	Sweep = 10-55-10Hz, Amplitude = 0.35mm or 5g Pulse = 1/2 Sine Duration = 2 hours in each X-Y-Z direction per IEC 512-4 test condition 6d	Change in contact resistance from initial value = 10mOhms **Maximum** Discontinuity = 1micro second **Maximum**

ITEM	TEST CONDITION	REQUIREMENT
Terminal Retention Force in Housing (Header Terminal)	Terminal withdrawal force to be applied at the rate of 25 ± 6mm per minute	Terminal Rentention force = 7N **Minimum**

5.3 ENVIRONMENTAL PERFORMANCE

ITEM	TEST CONDITION	REQUIREMENT
Damp Heat	Mate connectors and expose to: Temperature = +40° C +3/-0°C Humidity = 90 - 95% R.H Duration = 1000 Hours	Change in contact resistance from initial value = 10mOhms **Maximum** No visual damage
Dry Heat	Mate connectors and expose to: Temperature = +105°C +3/-0°C Duration = 240 hours	Change in contact resistance from initial value = 10mOhms **Maximum** No visual damage
Thermal Shock	Mate connectors and expose to: 10 cycles of the following profile Temperature °C Time Duration -40 +0 /-3 30 minutes +20 ± 5 5 minutes max +105 +3/-0 30 minutes	Change in contact resistance from initial value = 10mOhms **Maximum** No visual damage
Corrosive Atmosphere Sulphur Dioxide (SO_2)	Mate Connectors and expose to: Atmosphere: 10 parts per million (ppm) SO_2 Duration: 240 hours Temperature: 25 °C Humidity: 75% R.H.	Change in contact resistance from initial value = 10mOhms **Maximum** No visual damage

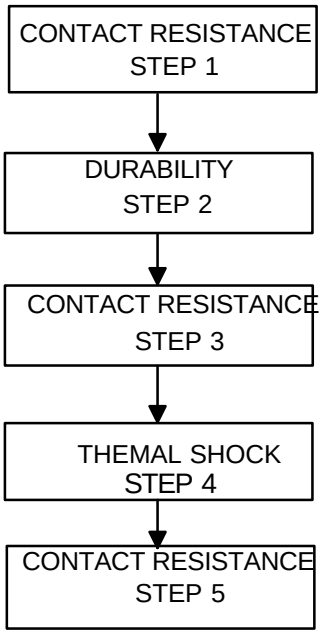
ITEM	TEST CONDITION	REQUIREMENT
Corrosive Atmosphere Hydrogen Sulphide (H_2S)	Mate Connectors and expose to: Atmosphere: 1 part per million (ppm) HS Duration: 96 hours Temperature: 25 °C Humidity: 75% R.H.	Change in contact resistance from initial value = 10mOhms **Maximum** No visual damage
Resistance to Infra-Red Reflow (90814 only)	Subject Unmated connectors to Infra-red profile shown in appendix	No visual damage

5.4 TEST SEQUENCE

5.4.1 TEST SEQUENCE (ALL PARTS EXCEPT 90814 SMT PICOFLEX)

TEST ITEM	Group I.	Group II.	Group III.	Group IV.	Group V.
CONTACT RESISTANCE	1.3.5.7	1.3.5	1.3.6	1.3.5	1.3.5
DURABILITY	2	2	2	2	2
DRY HEAT	4				
DAMP HEAT	6				
THERMAL SHOCK		4			
VIBRATION			4		
DROP SHOCK			5		
SULPHUR DIOXIDE				4	
HYDROGEN SULPHIDE					4

Note: The numbers in the boxes represent the sequence of testing. For example, the sequence of testing for Group II is shown in flow chart form below:



5.4.1 TEST SEQUENCE FOR 90814 SMT PICOFLEX

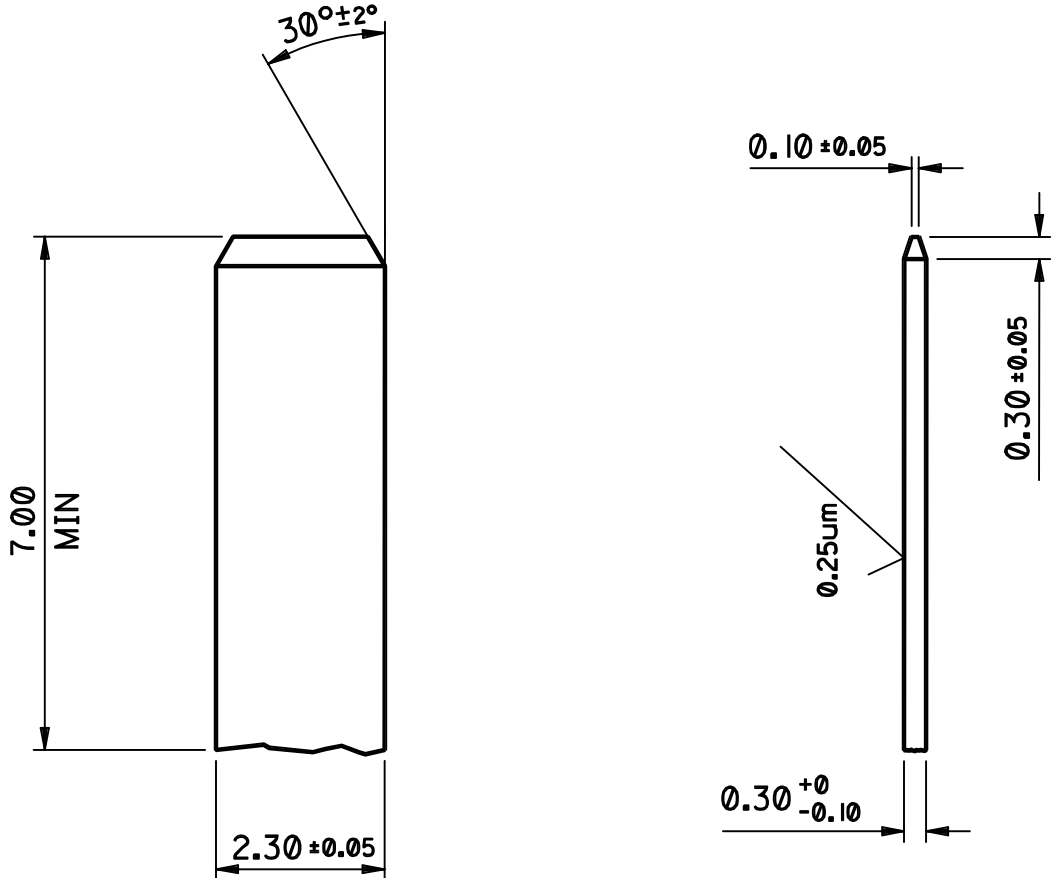
TEST ITEM	Group I.	Group II.	Group III.	Group IV.	Group V.
RESISTANCE TO INFRA-RED REFLOW	1	1	1	1	1
CONTACT RESISTANCE	2,4,6,8	2,4,6	2,4,7	2,4,6	2,4,6
DURABILITY	3	3	3	3	3
DRY HEAT	5				
DAMP HEAT	7				
THERMAL SHOCK		5			
VIBRATION			5		
DROP SHOCK			6		
SULPHUR DIOXIDE				5	
HYDROGEN SULPHIDE					5

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. For details of packaging see applicable family sales drawing.

7.0 GAUGES & FIXTURES

7.1 INSERTION/WITHDRAWAL GAUGE SPECIFICATION



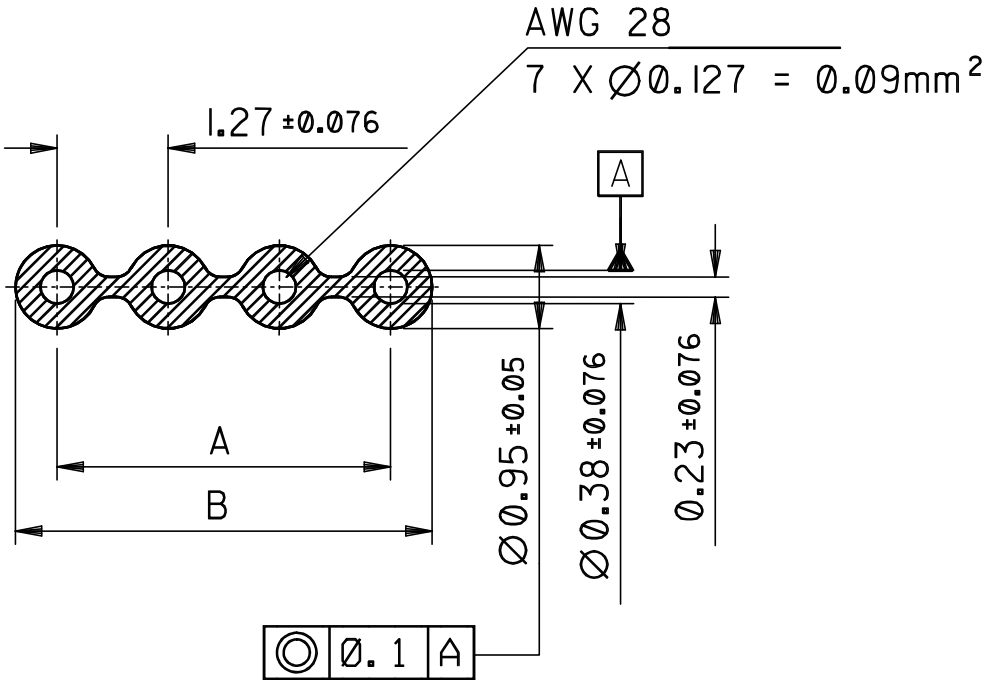
Insertion/Withdrawal Gauge Dimensions

Note: Gauge weight: 25 grams minimum

8.0 OTHER INFORMATION

8.1 CABLE SPECIFICATION

The cable profile is representational. Cable which meets the specified dimensions, constructions, and performance criteria is acceptable.



CIRCUIT SIZE	DIMENSION A	DIMENSION B
4	3.81	4.74
6	6.35	7.28
8	8.39	9.82
10	11.43	12.36
12	13.97	14.90
14	16.51	17.44
16	19.05	19.98
18	21.59	22.52
20	24.13	25.06
26	31.75	32.68

8.1.1 CONDUCTOR

EL-Cu stranded, 7 X 0.127mm diameter.
28 AWG (0.09 square millimetre)
EL-Cu-58F21 to DIN 40500, Tin plated V3 to DIN 40500.
Twist length to 6.8 maximum.

8.1.2 INSULATION

PVC Y17 to VDE 0207
Fire retardant rating VWI to UL62 and VDE 0472 and 804
Shore hardness: A90+-5.

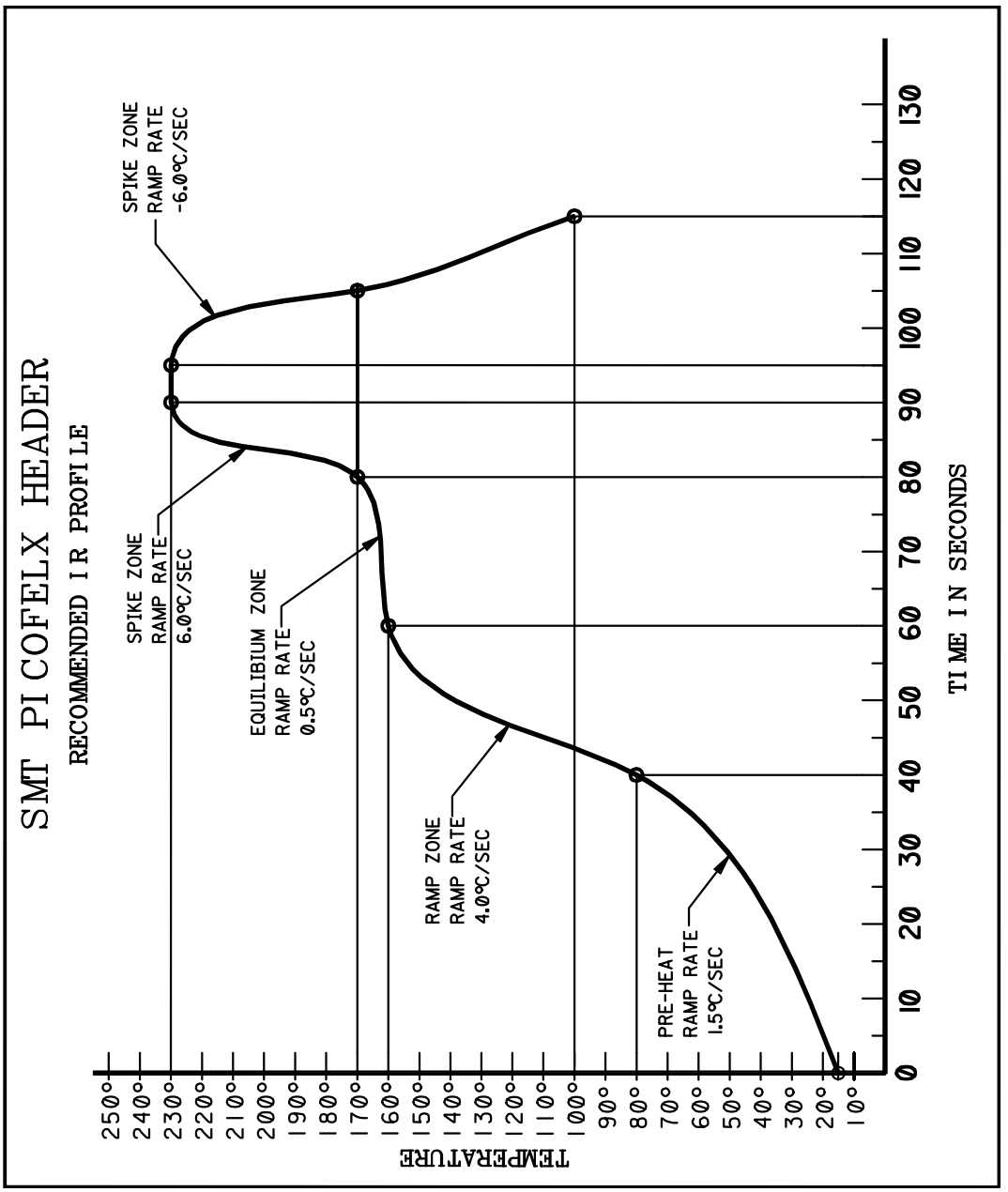
8.1.3 ELECTRICAL DATA: (at +20 degrees C)

Nominal voltage: 300V
Test voltage:1500V
Conductor resistance: less than or equal to 240 ohms/km
Insulation resistance: greater than or equal to 100 ohms/km.
Nominal current 1.2A (each conductor)

8.1.4 TEMPERATURE RANGE

Steady rise: -40 to +80 deg C.
Random rise: -20 to +80 deg C.

APPENDIX A



Recommended SMT Profile for 90814 Header

REVISE ON PC ONLY	
G	Revised to Corporate Standard
REV	DESCRIPTION

TITLE **PRODUCT SPECIFICATION FOR PICOFLEX**

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