# COMPONENT SPECIFICATION

## SUB-MINIATURE SOCKETS

JUN 2010

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## APPENDICES NOTES:

1. Third angle projection is used where projected views are shown.
2. All dimensions are in millimetres.
3. For explanation of dimensions, etc. see BS8888.
4. Unless otherwise stated, all dimensions are maxima.

PREPARED BY: S. McCullagh

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APPROVED BY: R. Adde

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1. DESCRIPTION OF CONNECTOR AND INTENDED APPLICATION.

The sub-miniature sockets are designed to allow I.C. devices to be mounted onto printed circuit boards, giving virtually zero above-board profile. The added advantage is of allowing tracks to be taken between the sockets, spaced on 2.54mm pitch centres. The socket is a press fit into a Ø1mm hole, and has a closed body design to eliminate solder wicking.

The socket consists of an outer brass shell, with tapered entry for I.C. leads, and an inner spring contact. This contact is manufactured from beryllium copper with four contact fingers. Both shell and spring contact have a choice of gold or tin finish with nickel undercoat.

This high reliability socket is designed to meet severe environmental conditions of shock, vibration, bump, etc. It is intended for applications where space is limited.

2. MARKING OF THE CONNECTOR AND/OR PACKAGE (ORDER CODE).

The marking (order code) shall appear on the package and shall be of the following style:

```
H XXXX - XX
```

Product Group
Connector Style
Contact Finish

For details of styles and finishes see the latest catalogue for more information.

The batch code shall appear on the package and shall be of the following style:

```
XXX XX X
```

Batch Number
Week Number
Year Number (last digit)

The batch number is 001 to 999 repeated each week.

3. RATINGS.

3.1. ELECTRICAL CHARACTERISTICS.

- Current per socket in isolation at an ambient temperature of 25°C....................................2.0A max
- Current per socket in isolation at an ambient temperature of 85°C....................................1.75A max
- Maximum contact resistance (initially)..................................................................................15 m
- Maximum contact resistance (after conditioning) ................................................................25 m

3.2. ENVIRONMENTAL CHARACTERISTICS.

- Environmental classification……………………………………………………………..…………55/125/56 at 95% RH
- Low air pressure severity .................................................................................................300 mbar
- Vibration severity ................................ 10Hz to 2000 Hz at 0.75mm / 98m/s² (10g), duration 6 hours
- Bump severity .............................................................................................................390m/s² (40g), 4000 bumps
- Shock severity ............................................................................................................ 981m/s² (100g) for 6 m
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3. RATINGS (continued).

3.3. MECHANICAL CHARACTERISTICS.
Durability .......................................................... 500 operations (Gold), 50 operations (Tin)
Clip retention in body .......................................................... 10N min
   Minimum retention force may be 10N from a sample of 10 sockets,
   providing the average of the samples is 22N.
Maximum insertion force (initial) ............................................. 6.0N
Minimum insertion force (After Conditioning) ......................... 2.0N
Maximum withdrawal force (initial) ....................................... 1.5N
Minimum withdrawal force (After Conditioning) ...................... 0.5N

APPENDIX 1 - GAUGES.

NOTES:
1. Material = Steel to BS1407 or equivalent.
2. Gauging surfaces to be hardened/ground to 650 H.V.5 minimum.
3. These gauges to be used for testing fully assembled components only.
4. Ultimate wear limit of 0.005mm is allowable on gauging diameters.

A1.1. INSERTION AND WITHDRAWAL GAUGE.

A1.2. HOLDING GAUGE (AFTER CONDITIONING) - Mass = 50 +0/-1 gm.