

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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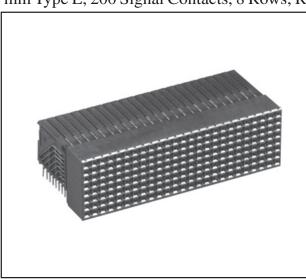




## 3M<sup>™</sup> MetPak<sup>™</sup> HSHM Press-Fit Socket

2 mm Type E, 200 Signal Contacts, 8 Rows, Right Angle

**HSHM Series** 



- Up to 5 Gb/s data rates
- Low crosstalk at high frequencies
- $50/100 \Omega$  (single-ended /differential) impedance
- Modular/scalable format IEC 61076-4-101
- 101 mated lines per linear inch
- Dual beam contact construction for high reliability
- End-to-end stackable with 8 row 3M<sup>™</sup> MetPak<sup>™</sup> HM and HSHM sockets
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of www.3mconnector.com for compliance information

Date Modified: November 17, 2010

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## **Physical**

**Insulation Material:** High Temperature Thermoplastic (LCP)

Flammability: UL 94V-0

Contact Material: Copper Alloy

Plating: See Ordering Information

## **Performance**

#### **Mechanical:**

Normal Force (Nominal): 0.57 N [58 g] Signal, 0.74 N [75 g] Shield Engagement Force (Nominal): 0.32 N [33 g] Signal, 0.22 N [22 g] Shield Separation Force (Nominal): 0.20 N [20 g] Signal, 0.20 N [20 g] Shield

Wipe (Nominal, Shortest Contact): 2.67 mm [0.105 in] Signal, 1.57 mm [0.062 in] Shield

Mate/Unmate Cycles: 250

Application: This module is not suitable for stand-alone use. (Refer to IEC-61076-4-101)

Electrical:

Data Rate: 5 Gb/s

Characteristic Impedance:  $50 \Omega$  Single-ended,  $100 \Omega$  Differential

Current Rating (Fully Loaded):  $1\,A\,$ @  $70^{\circ}\,$ C Signal Insulation Resistance:  $10^4\,$ M $\Omega$  @  $100\,$ V $_{DC}$ 

Withstanding Voltage: 750 V<sub>RMS</sub>

## **Environmental**

**Temperature Rating:** -55° C to 125° C

UL File No.: E68080 MetPak is a trademark of 3M Company.

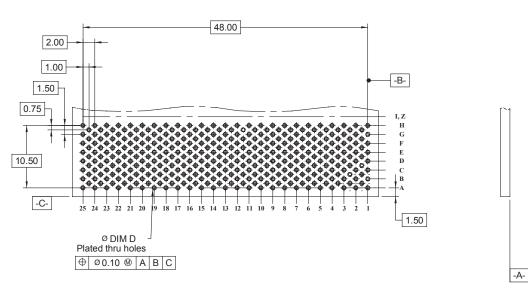
# 3M<sup>™</sup> MetPak<sup>™</sup> HSHM Press-Fit Socket

2 mm Type E, 200 Signal Contacts, 8 Rows, Right Angle **HSHM Series** HSHM-SXXXXX-8AP1-XXXXX REV X XXYY 50.00 [ 1.969 ] 22.40 [ .882 ] 48.00 [ 1.890 ] 2.00 [.079] 16.95 [.667] 17.40 [ .685 ] 2.00 [.079] 0.75 [.030] 2.00 [ .079 ] 3.30 [ .130 ] 2.00 [.079] 8.80 [ .346 ] 2.80 46.00 [ 1 811 ] 10.70 [ .421 ] mm (Inch) Tolerance Unless Noted 0.0 0.00 mm ±3 ±0.3 ±0.13 [] Dimensions for Reference Only **Ordering Information** HSHM-S200EX - 8AP1- XXXXX Plating µm [ µ" ]: High Speed Option: TG30 = 0.76 [30] Min. Au Contact Area 1 = Row differential applications 2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply) 1.27 [50] Min. Ni All over 4 = Coaxial and column differential applications Standard Option 0.76 [30] Min. Au Contact Area, Lubricated TG30L =2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply) 1.27 [50] Min. Ni All over Typically higher make order quantities as compared to TG30. 1.27 [50] Min. Au Contact Area, Lubricated 2.54 [100] Min. SnPb Terminal Area (RIA C2 & E2 apply) 1.27 [50] Min. Ni All over TG50 = Non-Standard Option (Available with longer lead times and higher make order quantities, MOQ) TS-2003-B Sheet 2 of 3

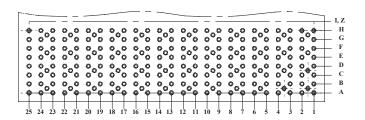
# 3M<sup>™</sup> MetPak<sup>™</sup> HSHM Press-Fit Socket

2 mm Type E, 200 Signal Contacts, 8 Rows, Right Angle





Recommended PCB hole mounting pattern for coaxial, column differential, and stripline applications



Recommended PCB hole mounting pattern for row differential applications (same geometry as above without the ground vias)

Hole Plating Table mm [in.]			
Finsihed Hole Dia. "D"	Cu. Thickness	SnPb Thickness	Drilled Hole Dia.
0.457 - 0.559 [.01800220]	0.025 - 0.045 [.00100018]	0.008 -0.018 [.00030007]	0.584 - 0.625 [.02300246]

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