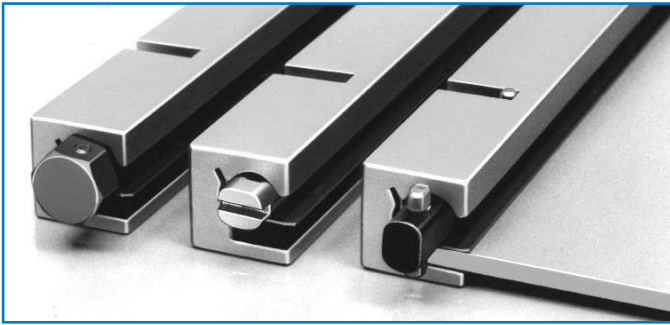


STANDARD ZIF CIRCUIT BOARD RETAINERS



GENERAL DESCRIPTION

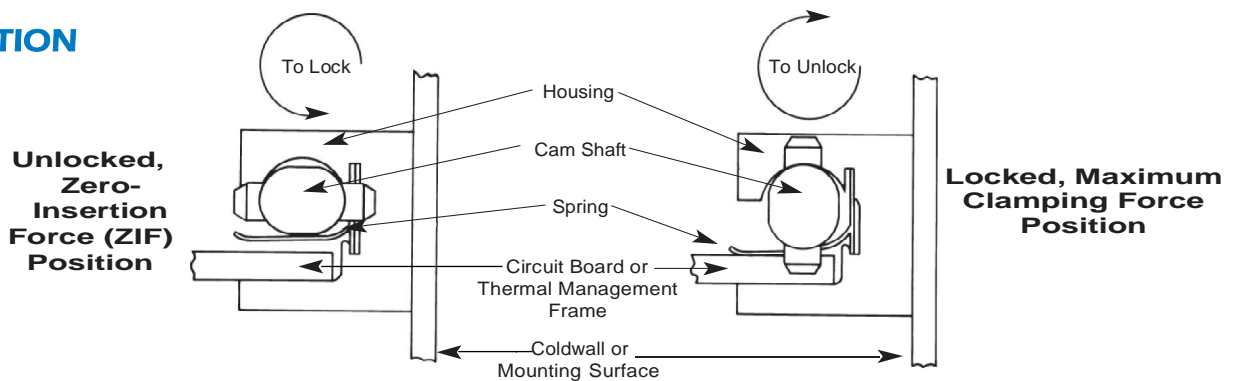
The ZIF retainer is a totally self-contained, precision assembly that provides a highly effective thermal interface between the circuit board and cold wall. Board lengths between 1-1/2" and 12" can be accommodated.

A ZIF retainer consists of:

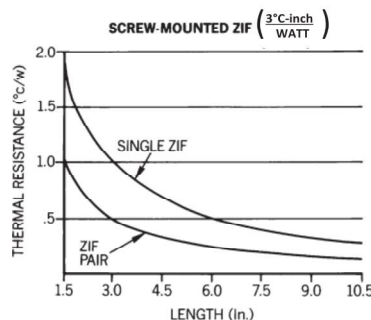
- (1) an aluminum housing
- (2) a rod/cam assembly constructed from an aluminum or stainless steel double flat rod extrusion. The ZIF rod assembly is driven by one of three options: pin, hex-head or screwdriver slot
- (3) a beryllium copper spring

ZIF retainers are mounted to any flat metal surface (cold wall). The standard configuration is attached with 4-40 hardware. However, the retainer housing can be supplied with tapped holes for M3x.5 metric hardware, or left undrilled with only index pins for vacuum brazing, dip brazing or epoxy bonding.

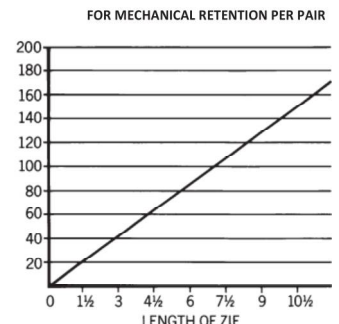
ZIF OPERATION



Improving the thermal conductivity of circuit board retainers enhances system performance by increasing the reliability of electronic components and circuit modules. Extensive testing of ZIF retainers in the CTS Engineering Test Laboratory demonstrates that they have the best thermal performance of any circuit board retainer available.



Clamping pressure is not only essential to heat transfer, but also a critical requirement for retention of PCBs under severe shock and vibration. ZIF retainers have been subjected to the most extreme test conditions specified in MIL-STD-810C. Nominal retention force for a circuit board held captive by a pair of ZIF retainers (I/O connector excluded) is shown in the graph.



DESIGN FEATURES

- QUICK LOCKING ACTION
- UNIFORM HEAT TRANSFER
- COMPLETE INTERCHANGEABILITY
- VISUAL INDICATION OF LOCK/UNLOCK

TECHNICAL ASSISTANCE-CUSTOM DESIGNS

Our engineering staff has extensive experience in the packaging of ZIF retainers. Modification of standard housings, cams and spring configurations for special design applications is frequently possible. We welcome the opportunity of providing you with the assistance needed to solve all of your thermal management problems.

SPECIFICATIONS

The ZIF cam detent design gives added assurance that a PCB will remain securely locked in position even under extreme vibration and shock levels. Detent action occurs during the final 15 degrees of cam rotation and virtually eliminates any possibility of the cam unlocking under environmental stress.

ORDERING INFORMATION - STANDARD ZIF

Z A S 1 1 1 - 062 - 15 R * - B B U

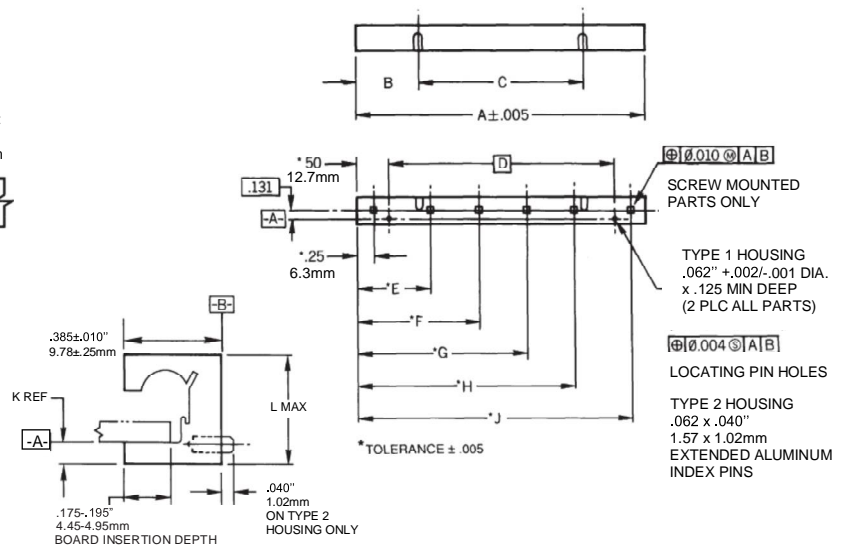
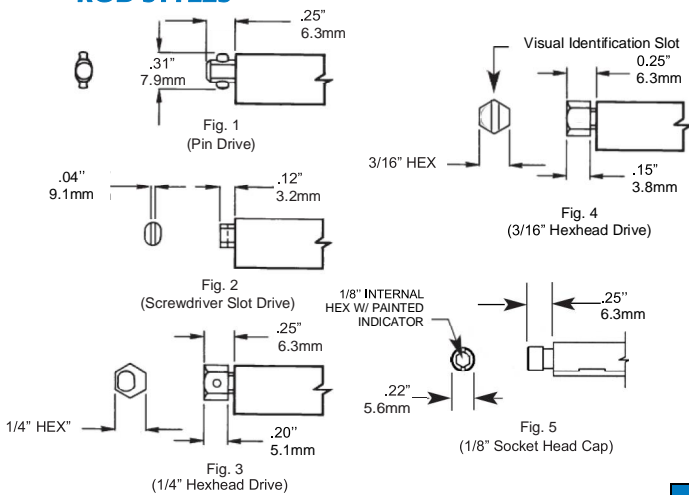
ZIF Designation
Assembly Option
 A=Assembled K=Kit
Mounting Method
 B=Brazed
 S=Screws 4-40
 M=Metric Screws (M3x0.5)
Housing Series
 1=Without Pins
 2=With .062x.040 Extended Aluminum Index Pins
Rod Assembly
 1=Pin Drive, Aluminum Rod (6" Max.)
 2=Pin Drive, Steel Rod
 3=Slot Drive, Steel Rod (4.5" Max.)
 4=1/4 Hex Drive, Aluminum Rod
 7=3/16 Hex Drive, Steel Rod
 ①S=3/16 Hex Drive, Steel Rod
 ①Z=1/8" Socket Head Cap, Steel Rod
Spring Series
 1=Current Design
Board Thickness (±.005 Max.)
 .031" .050" .062" .084" .093" .125"

Spring Plating
 U=Unplated B=Black Cadmium N=Nickel
Rod Plating
 B=Black Anod. Aluminum Rods
 P=Passivated, Steel Rods
Housing Plating
 B=Black Anodize
 U=Unplated
 R=Chem. Film
 R=Right Hand Part
 L=Left Hand Part
 Assembly Length in .5" Increments x 2
 Ex: 7.5"=15

*All assembled ZIFs must have a left or right designation.
 Any kit with a 1/4 inch hexhead drive must have a left or right designation.

① Visual identification slot painted yellow.

ROD STYLES



| ROD TYPE | | | |
|----------|----------|----------|--------------------|
| DESIG. | FIG. NO. | MATERIAL | MAX. SPRING LENGTH |
| ZRA1 | 1 | aluminum | 6 inches |
| ZRA2 | 1 | steel | 10.5 inches |
| ZRA3 | 2 | steel | 4.5 inches |
| ZRA4 | 3 | aluminum | 10.5 inches |
| ZRA7 | 4 | steel | 10.5 inches |
| ①ZRAS | 4 | steel | 10.5 inches |

ZIF circuit board retainers are available in several standard configurations. When ordering standard ZIF assemblies, kits or individual components, please refer to the ZIF identification number guide shown above. Custom ZIF retainers will be assigned special part number identification.

| BOARD THICK | K REF | L MAX |
|--------------|--------------|---------------|
| .031" .79mm | .094" 2.39mm | .400" 10.16mm |
| .050" 1.27mm | .075" 1.90mm | .400" 10.16mm |
| .062" 1.57mm | .063" 1.60mm | .400" 10.16mm |
| .084" 2.13mm | .063" 1.60mm | .422" 10.72mm |
| .093" 2.36mm | .079" 2.01mm | .447" 11.34mm |
| .125" 3.17mm | .082" 2.08mm | .478" 12.11mm |

| ZIF HOUSING DIMENSIONS | | | | | | | | | | | |
|------------------------|---------------|---------|------|-----|------|---------------------|------|------|------|-------|-------------------|
| LENGTH DESIGNATION | SPRING LENGTH | A ±.005 | B | C | D | 4-40 MOUNTING HOLES | | | | | NO. OF MNTG.HOLES |
| | | | | | | E | F | G | H | J | |
| 03 | 1.5 | 1.50 | .75 | — | .50 | 1.25 | — | — | — | — | 2 |
| 04 | 1.5 | 2.00 | 1.00 | — | 1.00 | 1.75 | — | — | — | — | 2 |
| 05 | 1.5 | 2.50 | 1.25 | — | 1.50 | 2.25 | — | — | — | — | 2 |
| 06 | 3 | 3.00 | .75 | 1.5 | 2.00 | 1.50 | 2.75 | — | — | — | 3 |
| 07 | 3 | 3.50 | 1.00 | 1.5 | 2.50 | 1.75 | 3.25 | — | — | — | 3 |
| 08 | 3 | 4.00 | 1.25 | 1.5 | 3.00 | 2.00 | 3.75 | — | — | — | 3 |
| 09 | 4.5 | 4.50 | .75 | 3.0 | 3.50 | 2.25 | 4.25 | — | — | — | 3 |
| 10 | 4.5 | 5.00 | 1.00 | 3.0 | 4.00 | 1.75 | 3.25 | 4.75 | — | — | 4 |
| 11 | 4.5 | 5.50 | 1.25 | 3.0 | 4.50 | 2.00 | 3.50 | 5.25 | — | — | 4 |
| 12 | 6 | 6.00 | .75 | 4.5 | 5.00 | 2.00 | 4.00 | 5.75 | — | — | 4 |
| 13 | 6 | 6.50 | 1.00 | 4.5 | 5.50 | 2.25 | 4.25 | 6.25 | — | — | 4 |
| 14 | 6 | 7.00 | 1.25 | 4.5 | 6.00 | 2.50 | 4.50 | 6.75 | — | — | 4 |
| 15 | 7.5 | 7.50 | 2.25 | 3.0 | 6.50 | 2.00 | 3.75 | 5.50 | 7.25 | — | 5 |
| 16 | 7.5 | 8.00 | 2.50 | 3.0 | 7.00 | 2.00 | 4.00 | 6.00 | 7.25 | — | 5 |
| 17 | 7.5 | 8.50 | 2.75 | 3.0 | 7.50 | 2.25 | 4.25 | 6.25 | 8.25 | — | 5 |
| 18 | 9 | 9.00 | 3.75 | 1.5 | 8.00 | 2.50 | 4.50 | 6.50 | 8.75 | — | 5 |
| 19 | 9 | 9.50 | 4.00 | 1.5 | 8.50 | 2.00 | 3.75 | 5.75 | 7.50 | 9.25 | 6 |
| 20 | 9 | 10.00 | 4.25 | 1.5 | 9.00 | 2.00 | 4.00 | 6.00 | 8.00 | 9.75 | 6 |
| 21 | 10.5 | 10.50 | 5.25 | — | 9.50 | 2.25 | 4.25 | 6.25 | 8.25 | 10.25 | 6 |

All dimensions are in inches unless otherwise noted.

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