# **Zierick Manufacturing Corporation**

In this Surface Mount Sample Box, you will find a representation of terminals from Zierick's various product lines. This includes a wide selection of Board-Board and Wire-Board Interconnect solutions (pins, quick disconnects (tabs), insulation displacement connectors, box receptacles, insulation piercing terminals, board stacking connectors, jumpers, wire grippers, sockets, headers and auto fuse clips). The Features and Benefits cards enclosed highlight some unique characteristics of each of these lines. You can also find 3-D downloadable part files for these items at www.zierick.com.

Zierick Manufacturing Corporation has been in business for over 90 years and is a leading source of solutions to complex interconnection requirements and problems for Markets including – Industrial Controls, Automotive, Appliance, HVAC, Solid State Lighting and Medical. From standard products to our custom solutions, Zierick has invented and produced technologies which have become the industry standard and which continue to shape the industry in the future.

If you have questions about any of these items, please contact us: 131 Radio Circle, Mt Kisco, NY 10549 • email: contactus@zierick.com phone: 914-666-2911 or 800-882-8020 or 001-914-666-2911

fax: 914-666-0216

## **Zierick Prototype Reels**

Zierick's surface mount taped parts are now available on 7" prototype reels which contain 100 terminals. These inexpensive reels are a quick and easy way to evaluate the parts with your equipment and your boards without making a large order commitment.

Zierick's Small Prototype Reels are readily obtainable for most of our surface mount parts. Check our website for current information regarding the availability of each part.



#### **SMT Post**

- Available in brass or copper alloy for high conductivity
- Applicable for .100" on-center applications
- · Individual pins can be randomly placed
- Pins don't float during reflow
- Pins are reliably perpendicular
- Available in two heights, .375" and .250"
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required



#### **Solid Star Base Pins**

- Can be made to different lengths and are offered in .040", 060", and .080" diameters
- Don't require orientation, placement is on a round pad
- Can be randomly placed
- Pins don't float during reflow
- · Reliably perpendicular
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required



## SMT Z-Axis Compliant Pin

- Pins provide Z-Axis (axial) compliancy to compensate for thermal expansion and contraction
- Applicable for parallel PCB stacking applications pins can be placed on .100" x 120" on-center applications
- Individual pins can be randomly placed
- Pins don't float during reflow
- · Pins are reliably perpendicular
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required

### **Variable Length Pins**

- · Individual pins can be randomly placed
- · Pins are reliably perpendicular
- · Available in many lengths
- Can be selectively plated base can be plated for solderability while pin is plated for connectivity
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required

### SMT / THT Tab/Quick Disconnect

- This Tab/Quick Disconnect was designed for SMT or THT applications
- · Ideal for demanding applications
- Applicable for SMT reflow process or THT wave soldering
- · High retention forces
- · Tabs don't float during reflow
- Shoulder on the part provides a stand-off for the mating part from the PCB
- Retains typical through-hole Quick Disconnect Tab features
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders



### Surface Mount Tab/Quick Disconnect

- · High retention forces
- Shoulder on part provides a stand-off for the mating part from the PCB
- Retains typical through-hole Quick Disconnect Tab features
- · Doesn't float during reflow
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Feature at the tip for pick and place automation
- Can be automated using standard tape feeders



#### **Surface Mount Pin Headers**

- Designed for demanding applications with shock, vibration, and elevated temperatures
- Capillary Action is utilized to improve solder joint strength and pin retention force - 50% higher than J-lead headers
- High resistance to thermal shock and thermal cycling due to material selection
- · Co-planarity problems eliminated
- Very forgiving board placement tolerances
- · Minimal real estate required on board
- Zierick's Horizontal Header is easily customized for a combination of different pin lengths and missing pins for proper mating connector orientation

## **Surface Mount Board Stacking Connectors**

- Optional special feeder can eliminate SMT taping costs
- Can be made to different lengths and diameters
- Self-centering-alignment problem eliminator
- · Co-planarity within .001"
- · Superior solder connection / joint
- · Available in bulk / pallets / SMT tape
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders



## SMT Insulation Piercing Crimp Terminal

- · Most economical way to terminate wire to board
- Smallest footprint
- · High current carrying capability
- · No separate strain relief required
- High resistance to wire flexing and axial and radial pull forces
- Lends itself to high speed automated termination
- Designed to be bulk fed with a special feeder
- · Available in taped format for low volume users



#### **Surface Mount IDC**

- Designed for demanding applications with shock, vibration, and elevated temperatures
- Eliminates the need for hand soldering wires to the board
- A surface mount version of a proven through-hole version
- Low profile
- · Terminates a large range of wire gauges
- IDCs don't float during reflow
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders



### **SMT Small Box Receptacle**

- Mates with an .025" square or round pin, from top or bottom
- 3 Amp current rating
- Can be placed as a vertical terminal on the pc board, or as a horizontal terminal, mating at either end
- Low insertion force
- High pressure contact area for reliable gas tight connection
- · Forgiving for locational misalignment
- A dozen mating cycles (higher mating cycle version available)
- · Small footprint
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- · Can be automated using standard tape feeders



## **SMT Large Box Receptacle**

- Mates, top entry, with a pin from .032" diameter round or square up to .090" round or square. A special version of this terminal can also be used in a wire gripper application to grip and hold a 14 AWG wire
- · High current rating
- Can also be placed upside down on the board to mate with a through-board pin
- · Low insertion force
- High pressure contact area or reliable gas tight connection
- A dozen mating cycles (higher mating cycle version available)
- · Small footprint
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders

#### **Fine Wire Connector**

- Features four wire housing holes and four individual piercing blades that can accommodate from 32 AWG solid, strand, or tinsel wire
- · Eliminates need to solder wires to the PCB
- Allows four wires to be terminated simultaneously without being stripped first



- Saves assembly cost and provides a more durable wire connection
- Uses minimal PCB real estate
- Plastic housing resists high reflow temperatures and provides excellent wire protection
- Can be automatically fed using standard tape and reel or a special bowl feeder

### **Dual Entry Receptacle**

- Can mate with a range of posts/tabs with a thickness of .020" to .025" and width of .020" to .120"
- · High current rating Low insertion force
- High pressure contact area for reliable gas tight connection
- Top or bottom (through board) entry
- A dozen mating cycles (higher mating cycle version available)
- Small footprint
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders



## **SMT Universal Tab Receptacles**

- · Forgiving for mating misalignment
- Mates with a range of tabs from .025" to .032" thick and widths from .062" wide and larger
- Low insertion force High current rating 30 Amps
- A dozen mating cycles (higher mating cycle version available)
- 14
- Performs well in demanding automotive applications (shock, vibration, elevated temperature)
- · Available in top, bottom, or side entry versions
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders

#### **SMT Sockets**

- High Current Rating, up to 7 Amps. depending on application
- Small footprint
- · Low profile
- Can be either power or signal connection (with appropriate plating)



- · High number of mating cycles
- Available in tape or bulk
- · Ideal for demanding environments

## Surface Mount Fuse / Pin Clips

- · Individual clips can be randomly placed
- · Clips don't float during reflow
- Available in two gap widths 0.165" gap for use with standard 5mm fuse - 0.095" gap for use as a 1/8" (.125") pin receptacle
- Gap dimension / contact force can be optimized for specific applications depending on mating cycles, voltage current and operating environment
- · High pressure, gas tight connection
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required
- Can be automated using standard tape feeders

### **SMT Jumpers**

- Eliminates the need for hand soldering wires to the board
- Economical passive connector
- Designed for automation using the customer's existing pick and place equipment and a special feeder - no time consuming hand placement or costly fixturing required



• Can be automated using standard tape feeders.

### **SMT Zip Cord Connector**

- This Zierick product is one of the most economical ways to terminate wire to a surface mount board.
- · Part placement can be automated.
- It has high resistance to shock and vibration.
- · There is no need to strip the cord.
- The wire is terminated by using a Zierick crimping press.
- The part is available in taped format.



