

Innovators in Socket Technology

We provide proven solutions to our customers, worldwide.

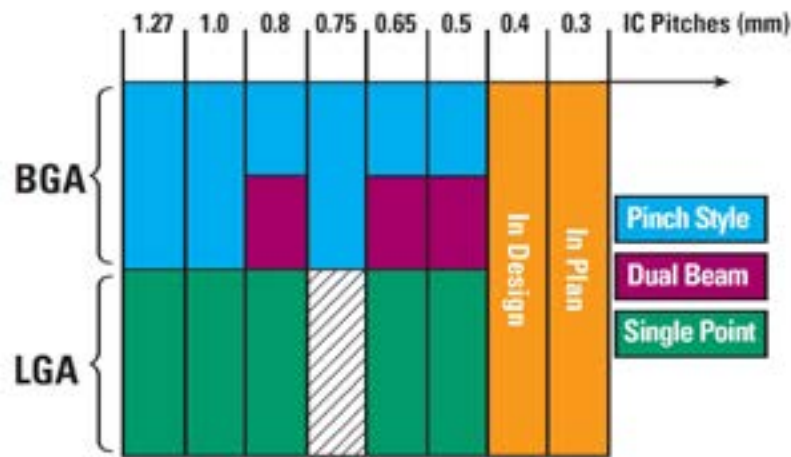
Boyd delivered more than 8 million memory sockets in 2004.

The Interconnection team works on next generation sockets to meet the newest requirements of our customers' rapidly growing markets.

Product Roadmap

Future is clear - More I/O at smaller sizes

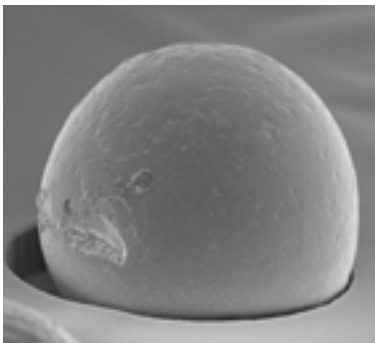
- Using the latest 3D design tools such as SolidWorks and non-linear FEA, the Interconnection engineers create new designs to meet your schedule.
- The availability of on-site model shops and rapid prototyping facilities allows the creation of prototypes so customers can evaluate new designs and concepts in days instead of weeks.
- A comprehensive technical service laboratory with advanced thermal analysis capabilities and wind tunnels allows Sensata to evaluate the thermal characteristics of the sockets.



Moore's Law continues to be validated as semiconductor companies drive more function in smaller form factors. The back-end packaging and assembly teams support this drive with the development of new package formats for SIP, stacked die and stacked packages. Suppliers of burn-in sockets are challenged to develop sockets for these new packages with higher I/O. Boyd Interconnection team eliminates the burn-in socket selection process by partnering with our customers to understand their needs and provide the optimal solution.

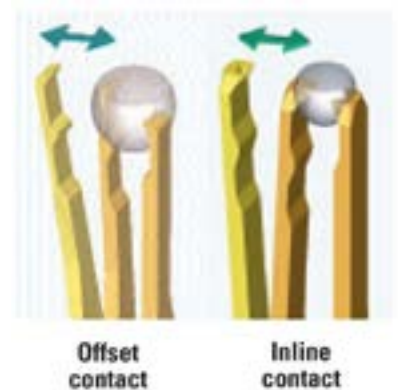
Product Features

Three primary contact designs have been developed to satisfy customer requirements for reliable electrical and mechanical interconnect. These contacts leave small "witness marks" on the solder ball and are available for Pb/Sn and Pb-free solder balls. The contacts, which open to allow package insertion, touch the solder ball above the equator when closed.



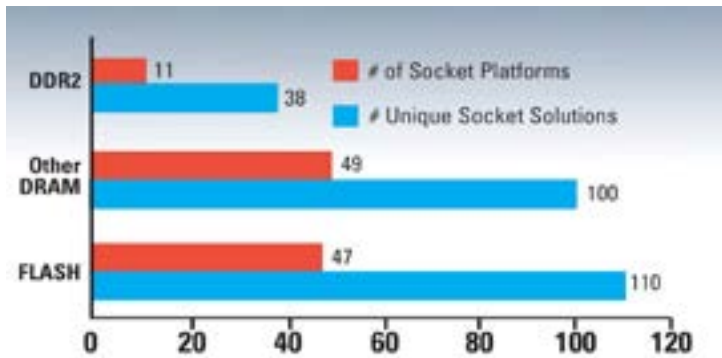
Witness mark left by Boyd contact

- Various contact designs
- Lower resistance contacts
- Customized plating options



Delivering World Class Solutions

Providing customers with solutions, Boyd Interconnection creates burn-in sockets for the semiconductor electronics industry to ensure the quality and reliability of the packaged device. Boyd engineers work with customers to provide a burn-in socket which maximizes the customers' burn-in system capacity for the lowest overall cost of ownership. Boyd offers a portfolio of sockets to serve memory manufacturers.



Design Features

- Open-top, auto-load actuated socket
- Small socket outline maximizes burn-in board density and process throughput
- Multiple package outlines and heights
- Custom options: adapter-less, coverless, lead lengths, plating options, color options

BGA Memory Socket Platforms (Series)

Memory Portfolio

- Extensive product offering
- Numerous pitches available
- Socket outlines maximize board density

	CLGxxx-012	CBGxxx-077	FBGAxxx-014	CBGxxx-A111		
	CBGxxx-A100	CBGxxx-A110				
	CBGxxx-051	CBGxxx-A118				
	CBGxxx-056	FBGAxxx-A104				
	CBGxxx-057	FBGAxxx-A105				
	CBGxxx-063	FBGAxxx-003				
	CBGxxx-073	FBGAxxx-012				
	CBGxxx-A109	CBGxxx-095	FBGAxxx-022	CBGxxx-020		
	CBGxxx-052	CBGxxx-103	FBGAxxx-023	CBGxxx-042		CBGxxx-A85
	CBGxxx-069		FBGAxxx-025	CBGxxx-035		CBGxxx-A120
	CBGxxx-087	CBGxxx-A70	FBGAxxx-037	CBGxxx-050		CBGxxx-A87
	CBGxxx-049	FBGAxxx-027	CBGxxx-A98	FBGAxxx-040	FBGAxxx-021	CBGxxx-079
	CBGxxx-059	FBGAxxx-030	CBGxxx-A99	FBGAxxx-044	FBGAxxx-041	CBGxxx-101
						CBGxxx-086
						CBGxxx-A94
Pitch	1.27mm	1.0mm	0.8mm	0.75mm	0.65mm	0.5mm
Min. Outline	19.5x24x17	27.5x32.5x17	22x18x15.9	19x18x15.4	19x19x15.8	26x19.5x18.1
Max. Outline	33.2x28.4	46.2x46.2x18.4	35x35x23	30x26.5x17.3	28x26x19	40x40x19.6

Socket Attributes

- Proven contact
- Small socket outline
- Numerous socket platforms
- Removable adapter



Typical Memory Socket Ratings	
Current	0.25A to 0.5A per pin @ 125°C
Contact Style	Varies based on Pb or Pb-free solder balls (10 - 20 gms/pin)
Actuation Force	1 Kg to 3.5 Kg (typ)
Pkg. Insertion Force	ZIF
Inductance	Approx. 6nH @ 50 MHz
Contact Resistance	Initial: 100 mOhm (max) @ 10mA; 10K cycles: 1 Ohm (max) @ 10mA
Insulation Resistance	1000 Mohms @ 500 VDC
Dielectric Withstand Voltage	For 1 minute @ 500 VAC
Temperature Rating	-55°C to 150°C

NOTICE: The information included in this data sheet is believed to be accurate and reliable. Boyd assumes no responsibility for end use applications and no performance warranty is expressed or implied.