



BallLock™ BGA Socket

Covered by patents and/or patents applied for.

FEATURES:

- Any grid size available on either 1.27mm [.050"] or 1.50mm [.059"] pitch.
- Lidless design - ball locks into two-fingered contact.
- Ultra-low profile socket adds only .050 [1.27] to overall package height (.100 [2.54] with SnapAdapt™ pins).
- Optional Corner guides aid in package insertion (not used with SnapAdapt™ pins).
- Consult Data Sheet Nos. 23003 and 23004 for Aries BallNest™ Socket.

SPECIFICATIONS:

- Socket body is UL 94V-0 FR-4.
- Optional lead-in guides are black UL 94V-0 glass-filled Thermoplastic (PPS).
- Contacts are Beryllium Copper Alloy per QQ-C-533.
- Contact plating is either 100μ [2.54μm] min. 90/10 Tin/Lead per MIL-T-10727 or 10μ [.25μm] min. Gold per MIL-G-45204 over 30μ [.76μm] Nickel per QQ-N-290.
- Solder ball terminations are 90/10 Lead/Tin.
- Solder paste is 63/37 eutectic.
- Solder mask is "dryfilm."
- Inductance≤1nH/contact. @ 100MHz approx. (under testing).
- Capacitance≤1pf/contact @ 100MHz approx. (under testing).
- Contact resistance=10mOhms initial, 20mOhms @10 cycles (under testing).
- Durability=10 cycles max.; up to 50 cycles with SnapAdapt™ pin.
- Insertion Force=50 grams/contact avg. (approximate); 40 grams/contact initial when used with SnapAdapt™ pin.
- Withdrawal Force=20 grams/contact max. (approximate).
- Socket accepts BGA devices with .030 [.76] dia. balls.

MOUNTING CONSIDERATIONS:

- Suggested PCB pad size=.025±.003 [.64±.08] dia.

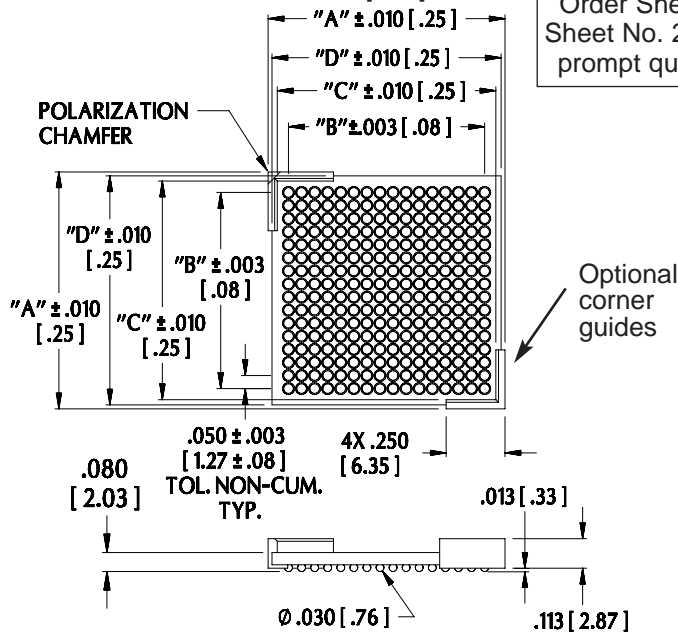
ALL DIMENSIONS: INCHES [MILLIMETERS]

"A"=BGA PACKAGE SIZE + .085 [2.29]

"B"=(NO. OF POSITIONS PER ROW - 1) X BGA PITCH

"C"=BGA PACKAGE SIZE + .015 [.25]

"D"=BGA PACKAGE SIZE + .060 [1.52]



All tolerances $\pm .005$ [.13]
unless otherwise specified

Use Aries' BGA
Order Sheet, Data
Sheet No. 23000, for
prompt quotations.

ORDERING INFORMATION

(for socket w/out corner guides only)

XXX-BGXXXXX-7XX

No. of positions
(256 shown)

Pitch
U=1.50mm
V=1.27mm

Ball Grid Array

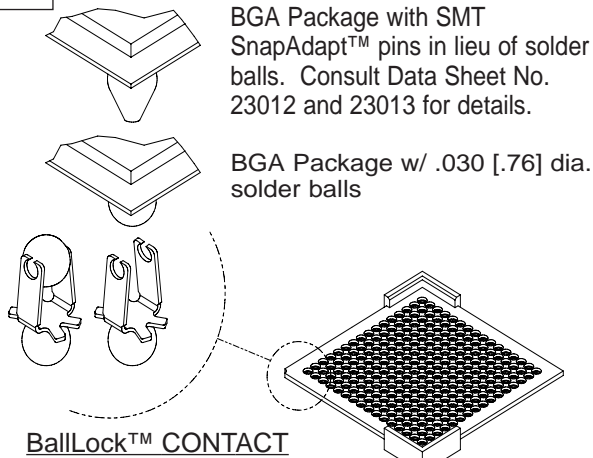
Footprint designator
(assigned by factory)

Pitch
U=1.50mm
V=1.27mm

- Plating:
0=Tin
1=Gold

Contact Type:
7=BallLock surface mount
solder ball contact

Note: Part number assigned by factory when ordering socket with corner guides.



Corner guides not used
with SnapAdapt™ pins.



NORTH AMERICA
 Frenchtown, NJ USA
 TEL: (908) 996-6841
 FAX: (908) 996-3891



UK/IRELAND/GB
TEL: +44 870 240 0249
FAX: +44 1653 600493
uking@arieselec.com

EUROPE/MAINLAND/HOLLAND
TEL: +31 78 615 94 65
FAX: +31 78 615 43 11
europe@arieselec.com

23002
REV.E