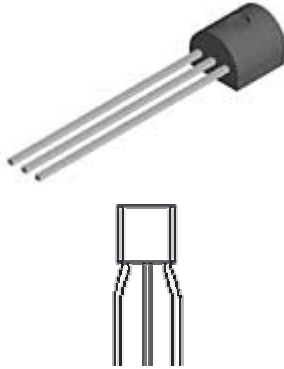




**Contact Us:**  
 Tel: 1-800-776-9888  
[sales@TopLine.tv](mailto:sales@TopLine.tv)  
[www.TopLine.tv](http://www.TopLine.tv)

**TO92**  
**JEDEC TO-92 Package**  
**TopLine Dummy Component**  
**For training, practice and evaluation**



[See Page 2-3 for Outline Drawing](#)

**Quick Specs:**  
 Pin Count 3L - Plastic Body  
 Pitch 0.050" (1.27mm)  
 Pitch 0.100" (2.54mm) Optional

**Use and Applications:**  
 IPC Solder Training & Practice  
 Equipment Evaluation  
 Prototype PWB

**Availability:**  
 Delivery Stock to 4 weeks

**Part Numbers:**  
**SnPb (Tin-Lead)**  
 TO92 = 0.050" (1.27mm) Pitch  
 TO92-.2 = 0.10" (2.54mm) Pitch  
 TO92A-.2 = 0.10" (2.54mm) Pitch  
 TO92TR-.2 = 0.10" (2.54mm) Pitch

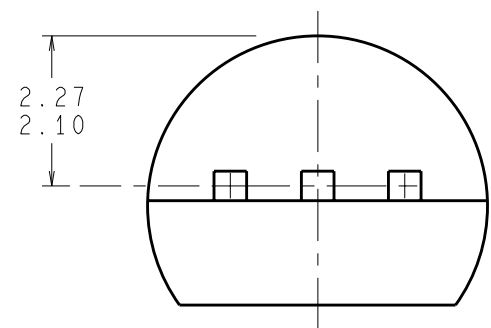
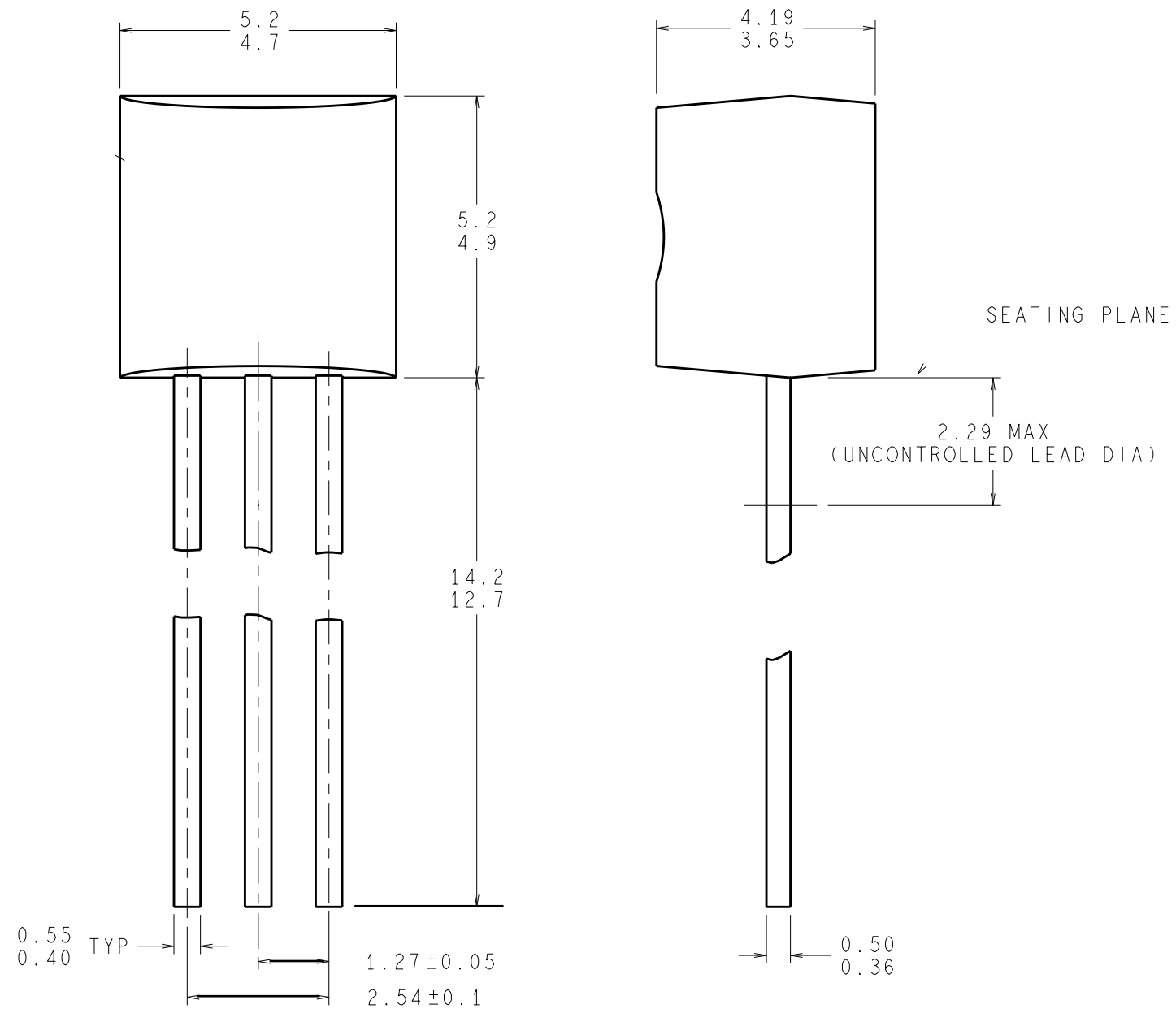
**Lead Free (RoHS) Pb-Free**  
 TO92-TIN = 0.050" (1.27mm) Pitch  
 TO92-.2-TIN = 0.10" (2.54mm) Pitch  
 TO92A-.2-TIN = 0.10" (2.54mm) Pitch

**Part Numbering System**

|              |  |   |  |   |   |
|--------------|--|---|--|---|---|
| TO92         | A  | - | .2   | - | Option                                      |
| Jedec Series | Packaging  | - | Pitch                                      | - | Plating                                     |
|              |  |   |  |   | Blank = SnPb                                |
| Plastic Case | Blank = Bulk<br>A = Ammo Tape<br>TR= Tape & Reel | - | Blank = 0.050" 1.27mm<br>.2 = 0.10" 2.54mm | - | TIN = Sn100<br>RoHS<br>Lead Free<br>Pb-Free |

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**TopLine Corporation**  
 95 Highway 22 W  
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 Email: [sales@topline.tv](mailto:sales@topline.tv)



**DIMENSIONS ARE IN MILLIMETERS**

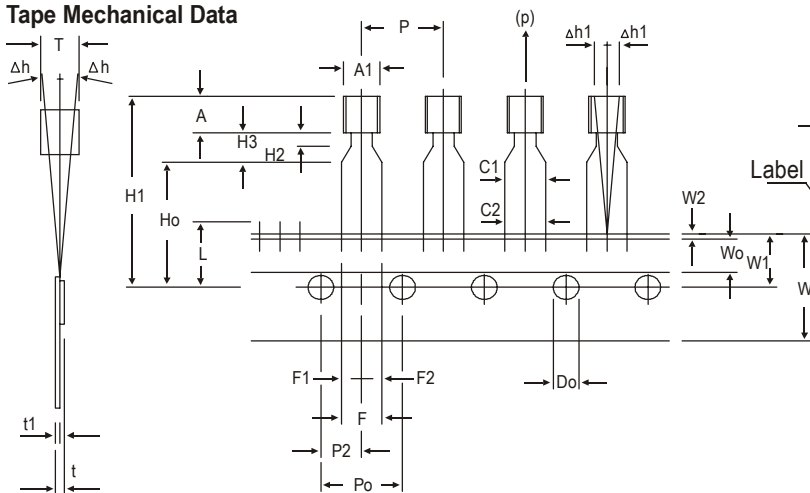
NOTES: UNLESS OTHERWISE SPECIFIED

1. STANDARD LEAD FINISH:  
LEAD/TIN 40/60 OVER COPPER A194 OR EQUIVALENT.
2. REFERENCE JEDEC REGISTRATION TO-226, VARIATION AA.

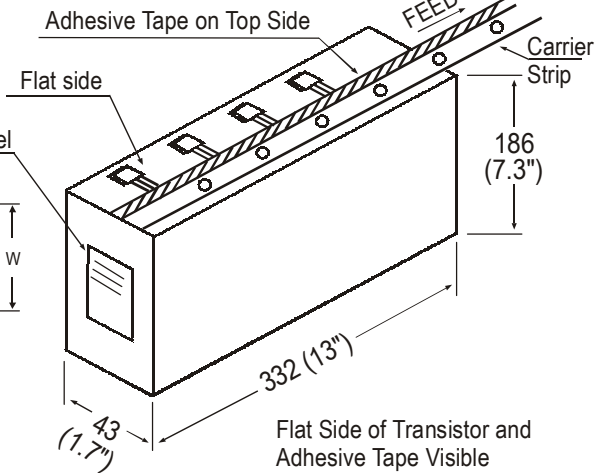
**TO-92, MOLDED,  
3 LEAD**

**TO-92 Transistors on Tape and Ammo Pack**

**Tape Mechanical Data**



**Ammo Pack Style**



All dimensions are in mm

| ITEM                                    | SYMBOL  | SPECIFICATION |      |       |                |
|---|---------|---------------|------|-------|----------------|
|   |         | MIN.          | NOM. | MAX.  | TOL.           |
| BODY WIDTH                              | A1      | 4.0           |      | 4.8   |                |
| BODY HEIGHT                             | A       | 4.8           |      | 5.2   |                |
| BODY THICKNESS                          | T       | 3.9           |      | 4.2   |                |
| PITCH OF COMPONENT                      | P       |               | 12.7 |       | ± 1.0          |
| *1 FEED HOLE PITCH                      | Po      |               | 12.7 |       | ± 0.3          |
| *2 FEED HOLE CENTRE TO COMPONENT CENTRE | P2      |               | 6.35 |       | ± 0.4          |
| DISTANCE BETWEEN OUTER LEADS            | F       |               | 5.08 |       | + 0.6<br>- 0.2 |
| *3 COMPONENT ALIGNMENT SIDE VIEW        | Δh      |               | 0    | 1.0   |                |
| *4 COMPONENT ALIGNMENT FRONT VIEW       | Δh1     |               | 0    | 1.3   |                |
| TAPE WIDTH                              | W       |               | 18   |       | ± 0.5          |
| HOLD-DOWN TAPE WIDTH                    | Wo      |               | 6    |       | ± 0.2          |
| HOLE POSITION                           | W1      |               | 9    |       | + 0.7<br>- 0.5 |
| HOLD-DOWN TAPE POSITION                 | W2      |               | 0.5  |       | ± 0.2          |
| LEAD WIRE CLINCH HEIGHT                 | Ho      |               | 16   |       | ± 0.5          |
| COMPONENT HEIGHT                        | H1      |               |      | 23.25 |                |
| LENGTH OF SNIPPED LEADS                 | L       |               |      | 11.0  |                |
| FEED HOLE DIAMETER                      | Do      |               | 4    |       | ± 0.2          |
| *5 TOTAL TAPE THICKNESS                 | t       |               |      | 1.2   |                |
| LEAD - TO - LEAD DISTANCE               | F1, F2  |               | 2.54 |       | + 0.4<br>- 0.1 |
| STAND OFF                               | H2      | 0.45          |      | 1.45  |                |
| CLINCH HEIGHT                           | H3      |               |      | 3.0   |                |
| LEAD PARALLELISM                        | C1 - C2 |               |      | 0.22  |                |
| PULL - OUT FORCE                        | (p)     | 6N            |      |       |                |

**NOTES**

1. Maximum alignment deviation between leads will not to be greater than 0.2mm.
2. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.
3. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.
4. There will be no more than three (3) consecutive missing components in a tape.
5. A tape trailer, having at least three feed holes are provided after the last component in a tape.
6. Splices should not interfere with the sprocket feed holes.

**REMARKS**

- \*1 Cumulative pitch error 1.0 mm/20 pitch
- \*2 To be measured at bottom of clinch
- \*3 At top of body
- \*4 At top of body
- \*5 t1 0.3 – 0.6 mm

**Packing Details**

| PACKAGE    | STANDARD PACK |                | INNER CARTON BOX  |     | OUTER CARTON BOX  |     |          |
|------------|---------------|----------------|-------------------|-----|-------------------|-----|----------|
|            | Details       | Net Weight/Qty | Size              | Qty | Size              | Qty | Gr Wt    |
| TO-92 Bulk | 1K/bag        | 200 gm/1K pcs  | 3" x 7.5" x 7.5"  | 5K  | 17" x 15" x 13.5" | 80K | 23 kgs   |
| TO-92 A    | 2K/ammo box   | 645 gm/2K pcs  | 12.5" x 8" x 1.8" | 2K  | 17" x 15" x 13.5" | 32K | 12.5 kgs |