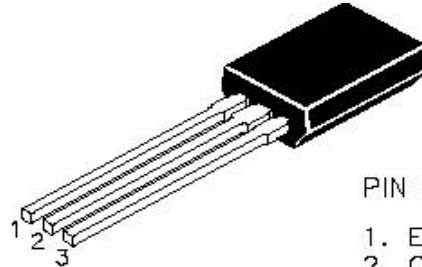


**TO-92 Plastic Package
NPN SILICON PLANAR EPITAXIAL TRANSISTOR**

High Voltage Switching and Amplifier Applications
CTV Horizontal Driver and Chroma Output Applications



PIN CONFIGURATION:—

1. EMITTER
2. COLLECTOR
3. BASE

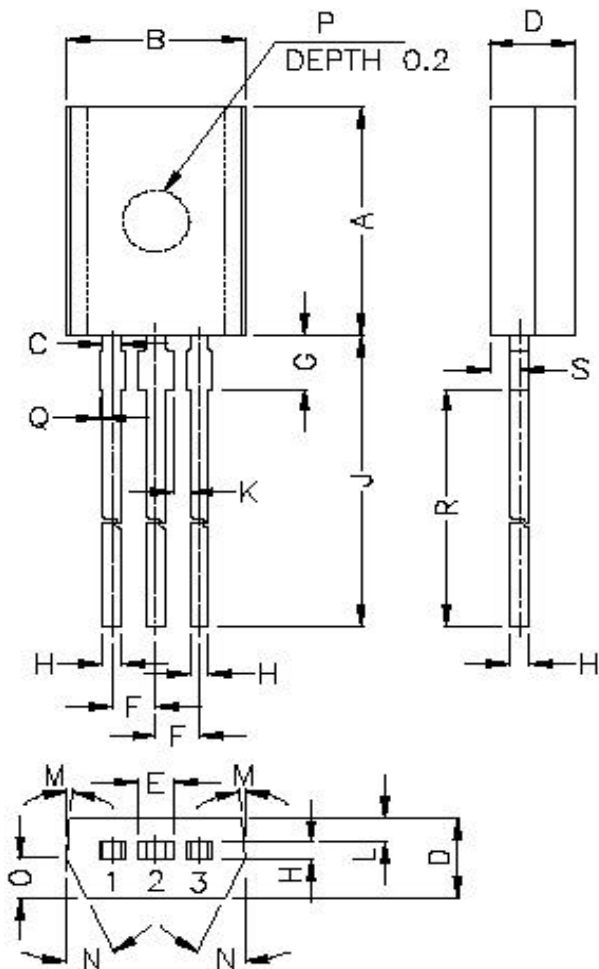
ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless specified otherwise)

| DESCRIPTION | SYMBOL | VALUE | UNITS |
|-----------------------------|-----------|--------------|------------------|
| Collector Emitter Voltage | V_{CEO} | 300 | V |
| Collector Base Voltage | V_{CBO} | 300 | V |
| Emitter Base Voltage | V_{EBO} | 7 | V |
| Collector Current | I_C | 100 | mA |
| Base Current | I_B | 50 | mA |
| Collector Power Dissipation | P_C | 900 | mW |
| Storage Temperature | T_{stg} | - 55 to +150 | $^\circ\text{C}$ |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$ unless specified otherwise)

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | TYP | MAX | UNITS |
|--------------------------------------|---------------|---|----------|-----|-----|---------------|
| Collector Cut Off Current | I_{CBO} | $V_{CB}=240\text{V}, I_E = 0$ | | | 1.0 | μA |
| Emitter Cut Off Current | I_{EBO} | $V_{EB}=7\text{V}, I_C = 0$ | | | 1.0 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=10\text{V}, I_C=4\text{mA}$ $V_{CE}=10\text{V}, I_C=20\text{mA}$ | 20 30 | | 150 | |
| Collector Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=10\text{mA}, I_B=1\text{mA}$ | | | 1.0 | V |
| Base Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=10\text{mA}, I_B=1\text{mA}$ | | | 1.0 | V |
| Transition Frequency | f_T | $V_{CE}=10\text{V}, I_C=20\text{mA}$ | 50 | | | MHz |
| Collector Output Capacitance | C_{Ob} | $V_{CB}=20\text{V}, I_E=0, f=1\text{MHz}$ | | 3.0 | | pF |

PACKAGE TO-92L



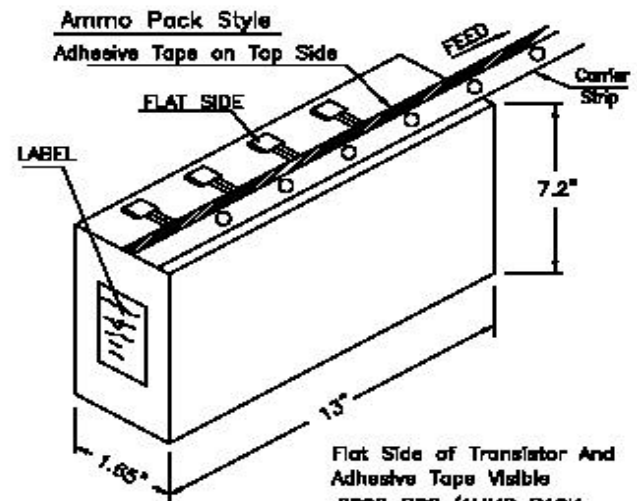
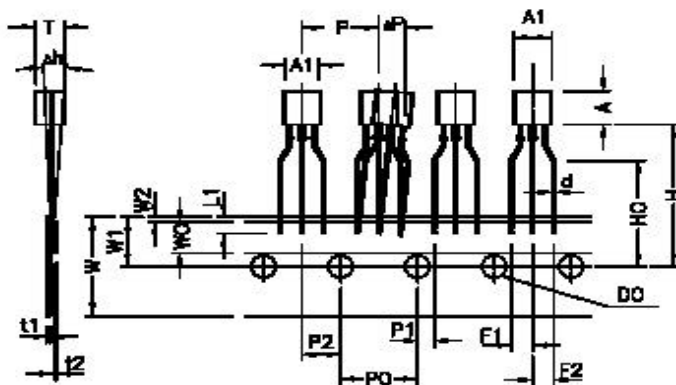
| DIMENSIONS | | | |
|------------|-------|-------------|-------|
| REF DIM | MIN | NOM | MAX |
| A | — | — | 7.20 |
| B | — | — | 5.20 |
| C | — | — | 0.60 |
| D | — | — | 2.50 |
| E | — | — | 1.15 |
| F | — | 1.27 | — |
| G | — | — | 1.70 |
| H | — | — | 0.55 |
| J | 13.50 | — | 14.50 |
| K | 0.35 | — | — |
| L | 0.65 | — | 0.85 |
| M | — | 4° | — |
| N | — | 25° | — |
| O | — | 1.25 | — |
| P | — | $\phi 1.50$ | — |
| Q | — | — | 0.10 |
| R | 12.00 | — | 13.00 |
| S | — | 1.00 | — |

PIN CONFIGURATION:—

1. EMITTER
2. COLLECTOR
3. BASE

ALL DIMENSIONS ARE IN M.M.

TO-92L TRANSISTOR ON TAPE AND AMMO PACK



Flat Side of Transistor And
Adhesive Tape Visible
2000 PCS./AMMO PACK

| ITEM | SYMBOL | VALUE & TOLERANCE |
|--------------------------------------|--------|-------------------|
| BODY WIDTH | A1 | 4.9 ±0.2 |
| BODY HEIGHT | A | 8.0 ±0.2 |
| BODY THICKNESS | T | 3.9 ±0.2 |
| LEAD WIRE DIAMETER | d | 0.45 ±0.05 |
| PITCH OF COMPONENT | P | 12.7 ±0.3 |
| FEED HOLE PITCH | P0 | 12.7 ±0.2 |
| HOLE CENTER TO COMPONENT CENTER | P2 | 8.35 ±0.3 |
| LEAD TO LEAD DISTANCE | F1,F2 | 2.5 ±0.3 |
| COMPONENT ALIGNMENT,F-R | Δh | 0 ±1.0 |
| TYPE WIDTH | W | 18.0 +1.0,-0.5 |
| HOLE DOWN TAPE WIDTH | W0 | 6.0 ±0.5 |
| HOLE POSITION | W1 | 9.0 ±0.5 |
| HOLE DOWN TAPE POSITION | W2 | 1.0 MAX. |
| HEIGHT OF COMPONENT FROM TAPE CENTER | H | 19.0 +2.0,-0 |
| LEAD WIRE CLINCH HEIGHT | H0 | 16.0 ±0.5 |
| LEAD WIRE (TAPE PORTION) | L1 | 2.5 MIN |
| FEED HOLE DIAMETER | DO | 4.0 ±0.2 |
| TAPED LEAD THICKNESS | t1 | 0.4 ±0.05 |
| CARRIER TAPE THICKNESS | t2 | 0.2 ±0.05 |
| POSITION OF HOLE | P1 | 3.85 ±0.3 |
| COMPONENT ALIGNMENT | ΔP | 0 ±1.0 |

NOTES:-

1. MAXIMUM ALIGNMENT DEVIATION BETWEEN LEADS NOT TO BE GREATER THAN 0.2 mm
2. MAXIMUM NON-CUMULATIVE VARIATION BETWEEN TAPE FEED HOLES SHALL NOT EXCEED 1 mm IN 20 PITCHES.
3. HOLDDOWN TAPE NOT TO EXCEED BEYOND THE EDGE(S) OF CARRIER TAPE AND THERE SHALL BE NO EXPOSURE OF ADHESIVE.
4. NO MORE THAN 3 CONSECUTIVE MISSING COMPONENTS IS PERMITTED.
5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES IS REQUIRED AFTER THE LAST COMPONENT.
6. SPIKES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

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