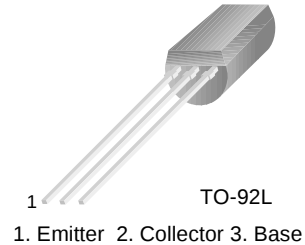


## KSA1370

### Crt Display, Video Output

- High Voltage
- Low Reverse Transfer Capacitance :  $C_{re} = 1.7\text{pF}$



### PNP Epitaxial Silicon Trnsistor

#### Absolute Maximum Ratings $T_a = 25^\circ\text{C}$ unless otherwise noted

| Symbol    | Parameter                   | Ratings   | Units            |
|-----------|-----------------------------|-----------|------------------|
| $V_{CBO}$ | Collector-Base Voltage      | -200      | V                |
| $V_{CEO}$ | Collector-Emitter Voltage   | -200      | V                |
| $V_{EBO}$ | Emitter-Base Voltage        | -5        | V                |
| $I_C$     | Collector Current (DC)      | -100      | mA               |
| $I_{CP}$  | Collector Current (Pulse)   | -200      | mA               |
| $P_C$     | Collector Power Dissipation | 1.0       | W                |
| $T_J$     | Junction Temperature        | 150       | $^\circ\text{C}$ |
| $T_{STG}$ | Storage Temperature         | -55 ~ 150 | $^\circ\text{C}$ |

#### Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

| Symbol               | Parameter                            | Test Condition                             | Min. | Typ. | Max. | Units         |
|----------------------|--------------------------------------|--------------------------------------------|------|------|------|---------------|
| $BV_{CBO}$           | Collector-Base Breakdown Voltage     | $I_C = -10\mu\text{A}, I_E = 0$            | -200 |      |      | V             |
| $BV_{CEO}$           | Collector-Emitter Breakdown Voltage  | $I_C = -1\text{mA}, I_B = 0$               | -200 |      |      | V             |
| $BV_{EBO}$           | Emitter-Base Breakdown Voltage       | $I_E = -10\mu\text{A}, I_C = 0$            | -5   |      |      | V             |
| $I_{CBO}$            | Collector Cut-off Current            | $V_{CB} = -150\text{V}, I_E = 0$           |      |      | -0.1 | $\mu\text{A}$ |
| $I_{EBO}$            | Emitter Cut-off Current              | $V_{EB} = -4\text{V}, I_C = 0$             |      |      | -0.1 | $\mu\text{A}$ |
| $h_{FE}$             | DC Current Gain                      | $V_{CE} = -10\text{V}, I_C = -10\text{mA}$ | 100  |      | 320  |               |
| $V_{CE}(\text{sat})$ | Collector-Emitter Saturation Voltage | $I_C = -20\text{mA}, I_B = -2\text{mA}$    |      |      | -0.6 | V             |
| $V_{BE}(\text{on})$  | Base-Emitter On Voltage              | $I_C = -20\text{mA}, I_B = -2\text{mA}$    |      |      | -1.0 | V             |
| $f_T$                | Current Gain Bandwidth Product       | $V_{CE} = -30\text{V}, I_C = -10\text{mA}$ |      | 150  |      | MHz           |
| $C_{ob}$             | Output Capacitance                   | $V_{CB} = -30\text{V}, f = 1\text{MHz}$    |      | 2.6  |      | pF            |
| $C_{re}$             | Reverse Transfer Capacitance         | $V_{CB} = -30\text{V}, f = 1\text{MHz}$    |      | 1.7  |      | pF            |

## Typical Characteristics

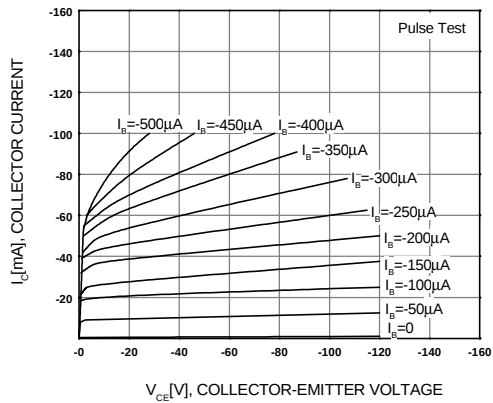


Figure 1. Static Characteristic

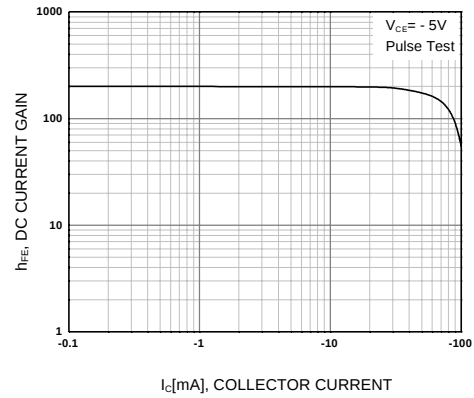


Figure 2. DC current Gain

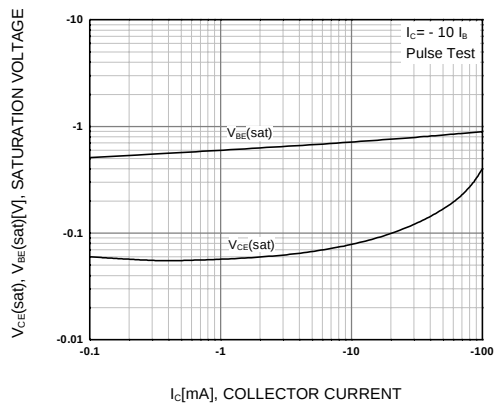


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

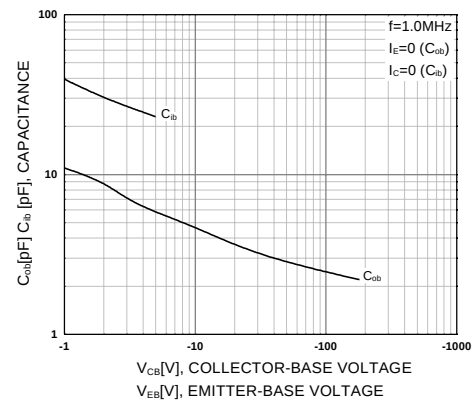


Figure 4. Collector Output Capacitance

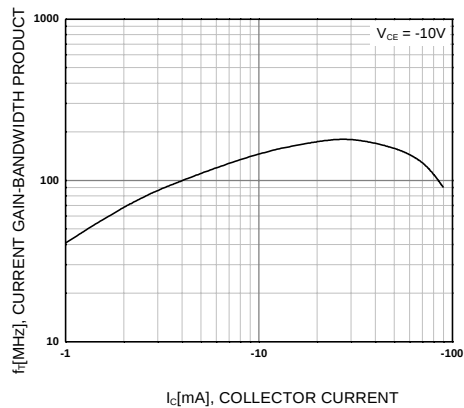


Figure 5. Current Gain Bandwidth Product

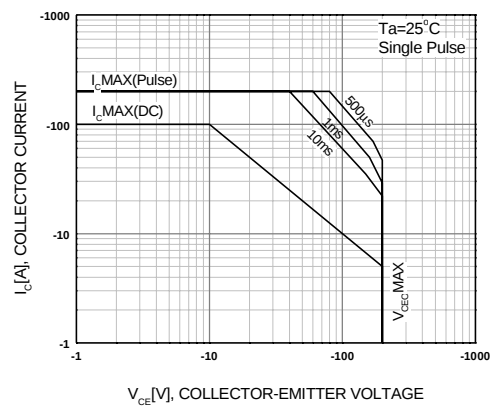


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

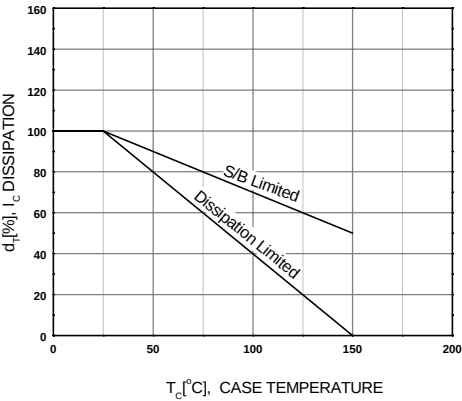
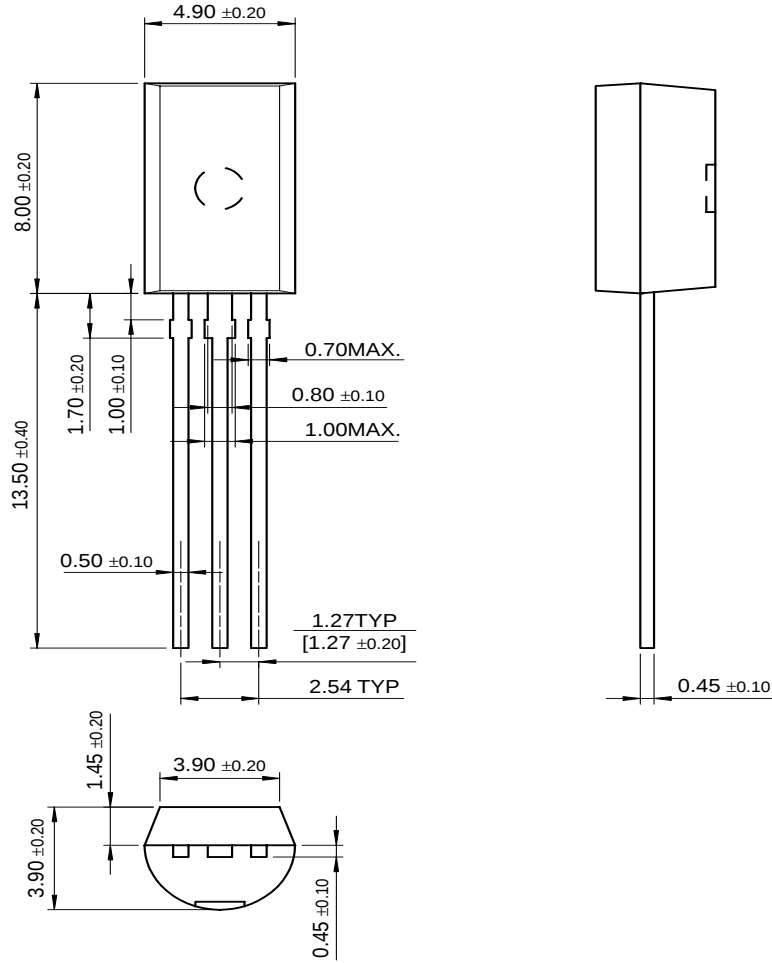


Figure 7. Derating Curve of Safe Operating Areas

# Package Dimensions

## TO-92L



Dimensions in Millimeters