FAIRCHILD
SEMICONDUCTOR®

# KSA1370

## Crt Display, Video Output

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


TO-92L

1. Emitter 2. Collector 3. Base

## PNP Epitaxial Silicon Trnsistor

### Absolute Maximum Ratings $T_a$=25°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 | °C |
| $T_{STG}$ | Storage Temperature | -55 ~ 150 | °C |

### Electrical Characteristics $T_a$=25°C unless otherwise noted

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

# Typical Characteristics

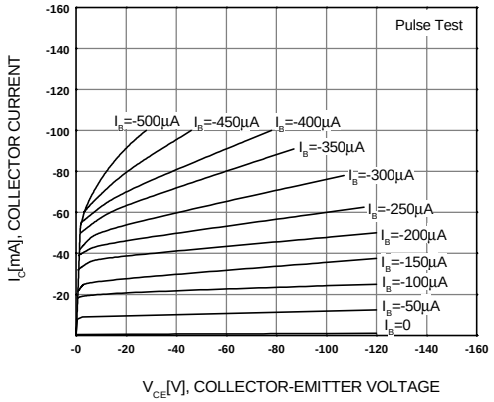



**Figure 1. Static Characteristic**

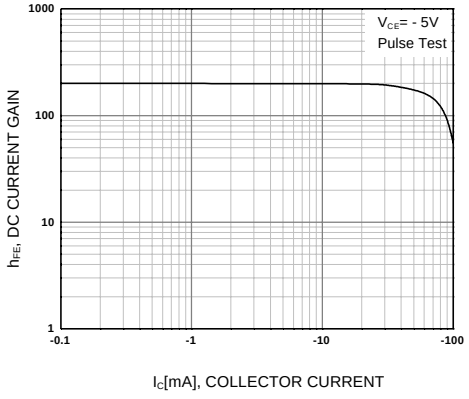



**Figure 2. DC current Gain**

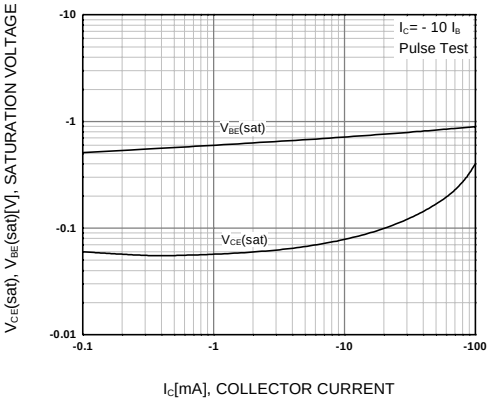



**Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage**

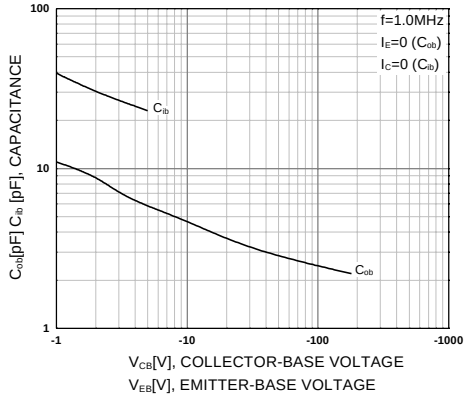



**Figure 4. Collector Output Capacitance**

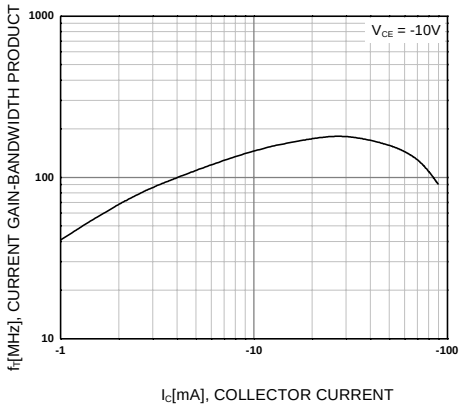



**Figure 5. Current Gain Bandwidth Product**

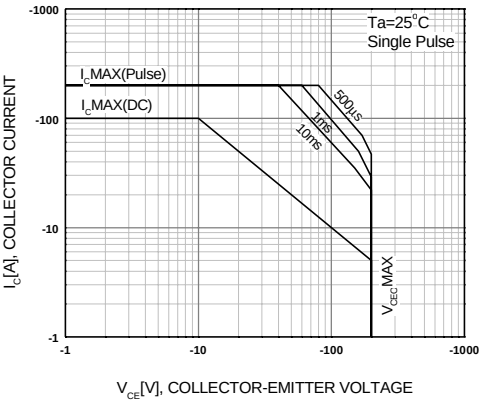



**Figure 6. Safe Operating Area**

## Typical Characteristics (Continued)

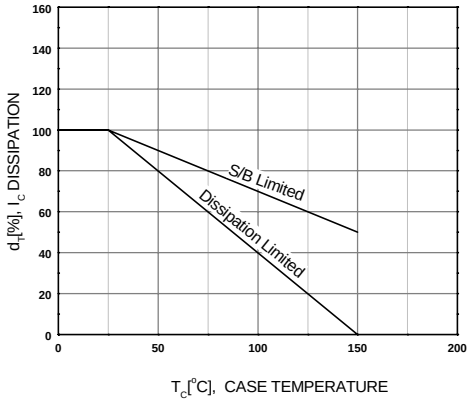
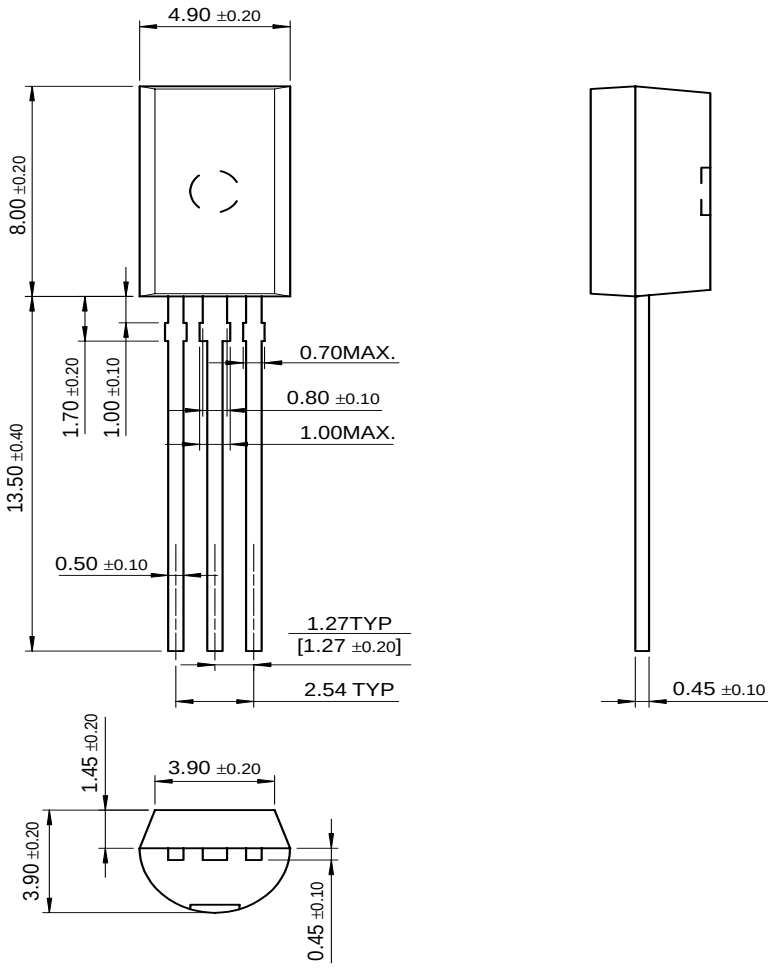



**Figure 7. Derating Curve of Safe Operating Areas**

## Package Dimensions

TO-92L




Dimensions in Millimeters

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