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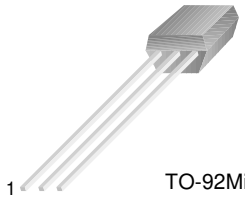
FAIRCHILD
SEMICONDUCTOR®

# FJNS7565

## For Output Amplifier of Electronic Flash Unit

- Low Collector-Emitter Saturation Voltage
- High Performance at Low Supply Voltage




TO-92Mini

1.Emitter 2. Collector 3. Base

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_C$=25°C unless otherwise noted

| Symbol | Parameter | Ratings | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 15 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 10 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 7 | V |
| $I_C$ | Collector Current | 5 | A |
| $P_C$ | Collector Dissipation | 0.55 | W |
| $T_J$ | Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature | -55 ~ 150 | °C |

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

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| $BV_{CBO}$ | Collector-Base Voltage | $I_C$ = 10μA, $I_E$ = 0 | 15 | | | V |
| $BV_{CEO}$ | Collector-Emitter Voltage | $I_C$ = 1mA, $I_B$ = 0 | 10 | | | V |
| $BV_{EBO}$ | Emitter Base Voltage | $I_C$ = 10μA, $I_C$ = 0 | 7 | | | V |
| $I_{CBO}$ | Collector Cut-off Current | $V_{CB}$ = 15V, $I_E$ = 0 | | | 100 | nA |
| $I_{EBO}$ | Emitter Cut-off Current | $V_{EB}$ = 5V, $I_C$ = 0 | | | 100 | nA |
| $h_{FE1}$<br>$h_{FE2}$<br>$h_{FE3}$ | DC Current Gain | $V_{CE}$ = 2V, $I_C$ = 0.5A<br>$V_{CE}$ = 2V, $I_C$ = 2A<br>$V_{CE}$ = 2V, $I_C$ = 5A | 450<br>300<br>150 | | 800 | |
| $V_{CE}$ (sat) | Collector-Emitter Saturation Voltage | $I_C$ = 3A, $I_B$ = 60mA | | | 0.45 | V |
| $V_{BE}$ (sat) | Base-Emitter Saturation Voltage | $I_C$ = 3A, $I_B$ = 60mA | | | 1.5 | V |
| $C_{ob}$ | Collector Output Capacitance | $V_{CB}$ = 20V, $I_E$ = 0, f = 1MHz | | 20 | | pF |

# Typical Characteristics

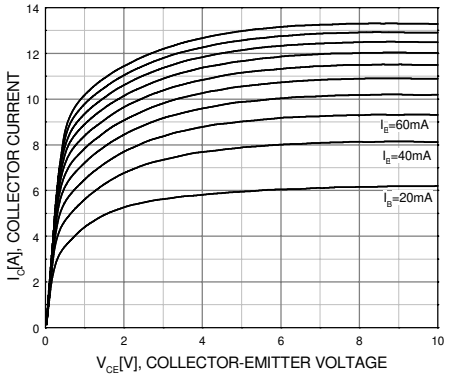



**Figure 1. Static Characteristic**

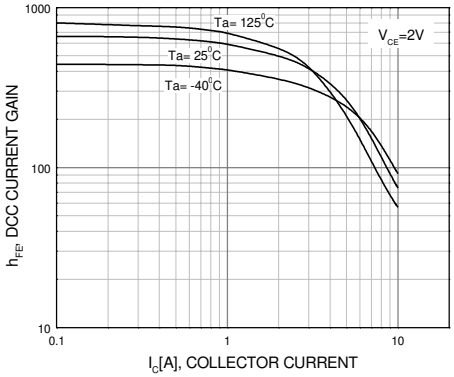



**Figure 2. DC Current Gain**

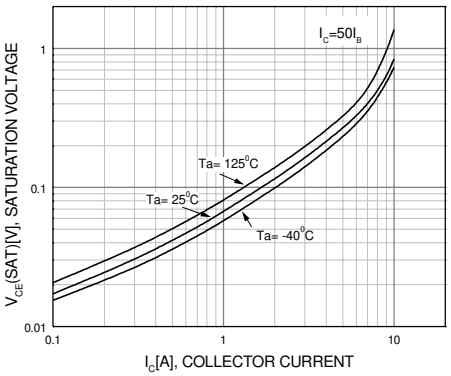



**Figure 3. Collector-Emitter Saturation Voltage**

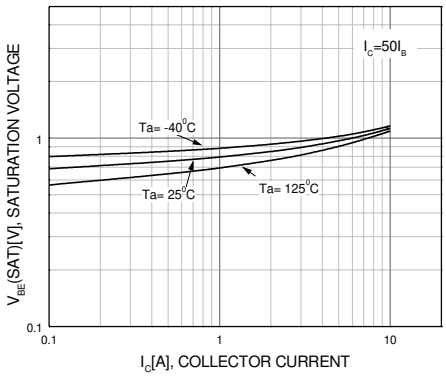



**Figure 4. Base-Emitter Saturation Voltage**

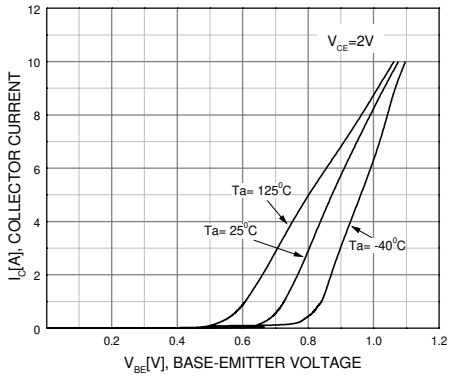



**Figure 5. Base-Emitter On Voltage**

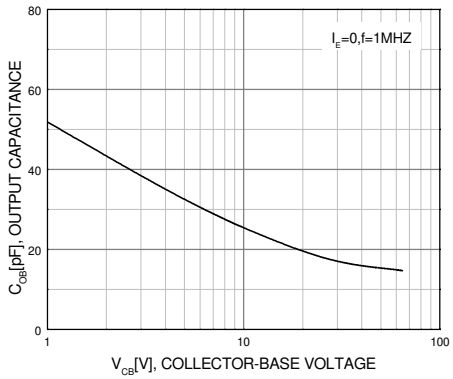
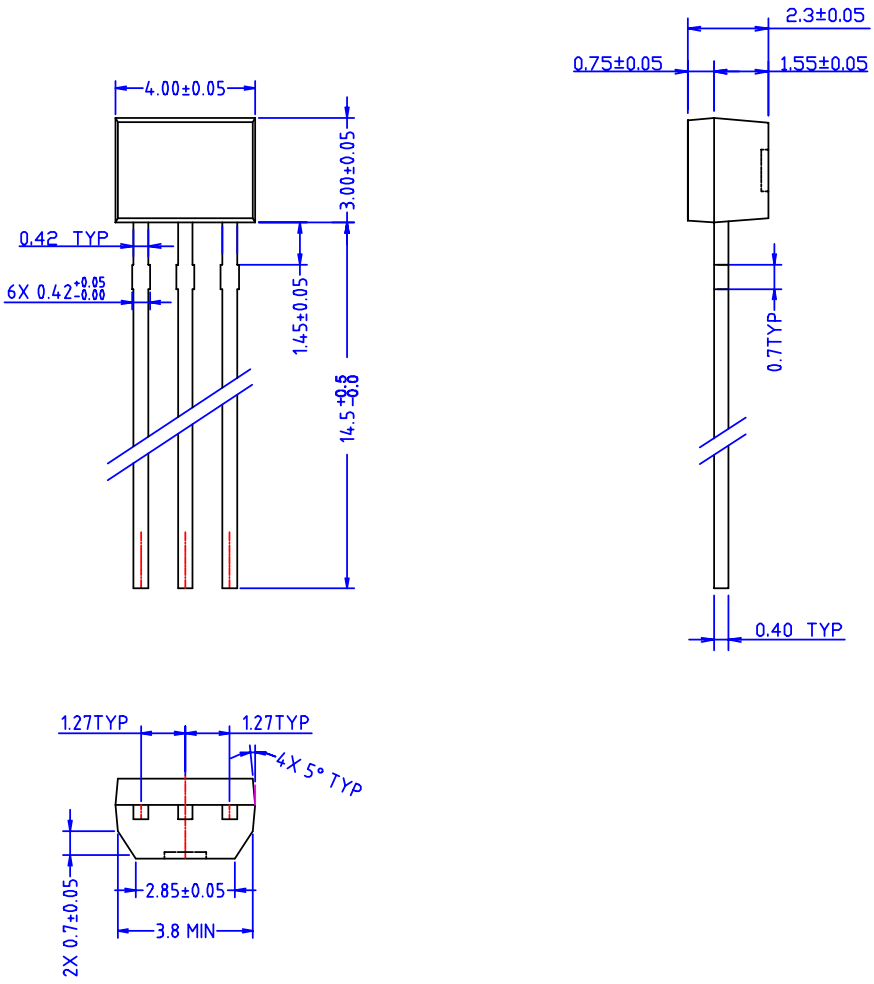



**Figure 6. Collector Output Capacitance**

## Package Dimensions

TO-92Mini




Dimensions in Millimeters

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