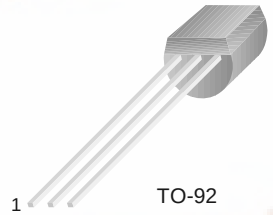
FAIRCHILD SEMICONDUCTOR®

# FJN4313R

## Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R_1$=2.2KΩ, $R_2$=47KΩ)
- Complement to FJN3313R



TO-92

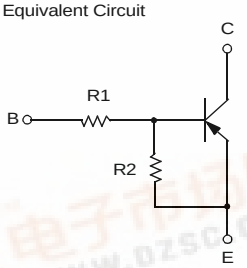
1. Emitter 2. Collector 3. Base

## PNP Epitaxial Silicon Transistor

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

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -50 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -50 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -10 | V |
| $I_C$ | Collector Current | -100 | mA |
| $P_C$ | Collector Power Dissipation | 300 | mW |
| $T_J$ | Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature | -55 ~ 150 | °C |

Equivalent Circuit

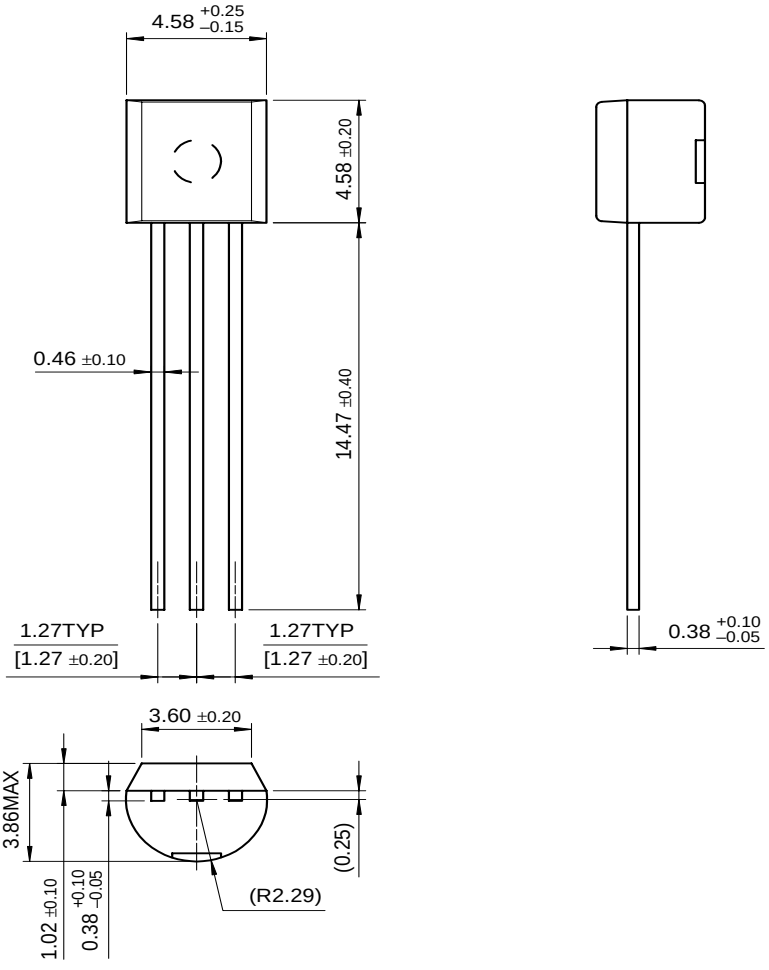



### Electrical Characteristics $T_a$=25°C unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---|---|---|---|---|---|---|
| $BV_{CBO}$ | Collector-Base Breakdown Voltage | $I_C$= -10μA, $I_E$=0 | -50 | | | V |
| $BV_{CEO}$ | Collector-Emitter Breakdown Voltage | $I_C$= -100μA, $I_B$=0 | -50 | | | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= -40V, $I_E$=0 | | | -0.1 | μA |
| $h_{FE}$ | DC Current Gain | $V_{CE}$= -5V, $I_C$= -5mA | 68 | | | |
| $V_{CE}$(sat) | Collector-Emitter Saturation Voltage | $I_C$= -10mA, $I_B$= -0.5mA | | | -0.3 | V |
| $f_T$ | Current Gain Bandwidth Product | $V_{CE}$= -10V, $I_C$=-5mA | | 200 | | MHz |
| $C_{ob}$ | Output Capacitance | $V_{CB}$= -10V, $I_E$=0 f=1.0MHz | | 5.5 | | pF |
| $V_I$(off) | Input Off Voltage | $V_{CE}$= -5V, $I_C$= -100μA | -0.5 | | | V |
| $V_I$(on) | Input On Voltage | $V_{CE}$= -0.2V, $I_C$= -10mA | | | -1.1 | V |
| $R_1$ | Input Resistor | | 1.5 | 2.2 | 2.9 | KΩ |
| $R_1/R_2$ | Resistor Ratio | | 0.042 | 0.047 | 0.052 | |

## Package Dimensions

TO-92




Dimensions in Millimeters

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