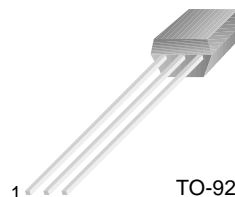


# FJNS4202R

## Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ( $R_1=10K\Omega$ ,  $R_2=10K\Omega$ )
- Complement to FJNS3202R



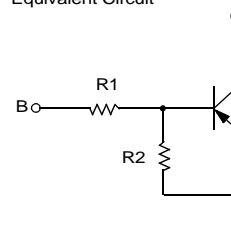
TO-92S  
1. Emitter 2. Collector 3. Base

## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

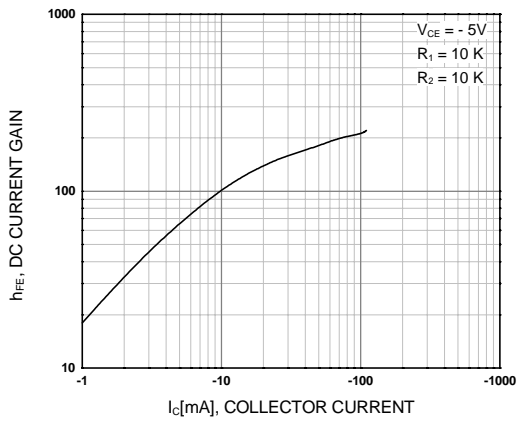
Equivalent Circuit



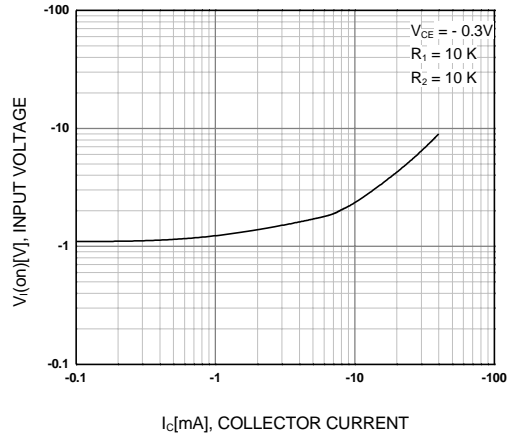
### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -10\mu\text{A}$ , $I_E = 0$	-50			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -100\mu\text{A}$ , $I_B = 0$	-50			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -40\text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE} = -5\text{V}$ , $I_C = -5\text{mA}$	30			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{mA}$ , $I_B = -0.5\text{mA}$			-0.3	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = -10\text{V}$ , $I_C = -5\text{mA}$		200		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = -10\text{V}$ , $I_E = 0$ $f = 1.0\text{MHz}$		5.5		pF
$V_I(\text{off})$	Input Off Voltage	$V_{CE} = -5\text{V}$ , $I_C = -100\mu\text{A}$	-0.5			V
$V_I(\text{on})$	Input On Voltage	$V_{CE} = -0.3\text{V}$ , $I_C = -10\text{mA}$			-3	V
$R_1$	Input Resistor		7	10	13	$K\Omega$
$R_1/R_2$	Resistor Ratio		0.9	1	1.1	

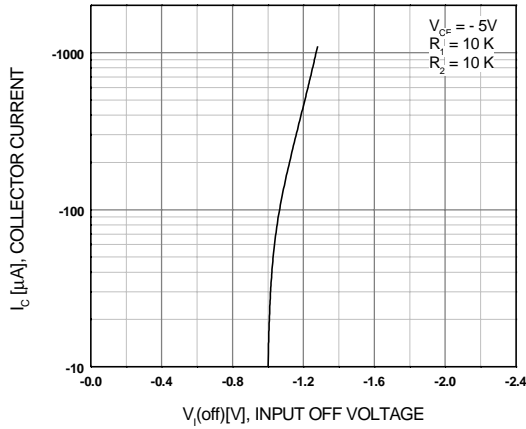
# Typical Characteristics



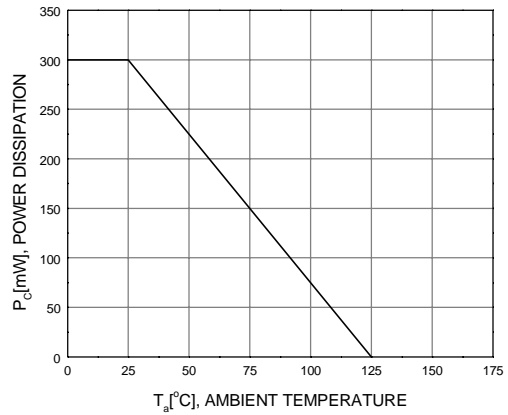
**Figure 1. DC current Gain**



**Figure 2. Input On Voltage**



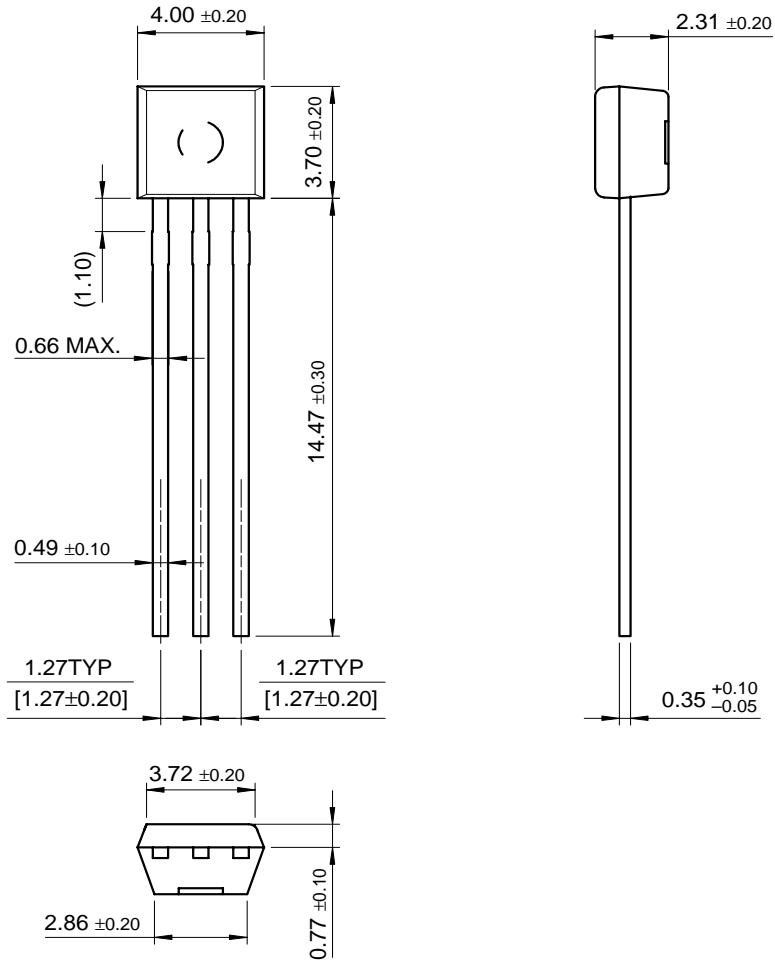
**Figure 3. Input Off Voltage**



**Figure 4. Power Derating**

# Package Dimensions

## TO-92S



Dimensions in Millimeters

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### Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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FJNS4202R

PNP Epitaxial Silicon Transistor

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Features

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
FJNS4202RBU	Full Production	\$0.059	<a href="#">TO-92S</a>	3	BULK
FJNS4202RTA	Full Production	\$0.059	<a href="#">TO-92S</a>	3	TAPE REEL

\* 1,000 piece Budgetary Pricing

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