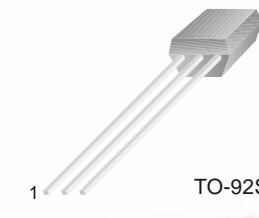




FJNS4204R

Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R_1=47K\Omega$, $R_2=47K\Omega$)
- Complement to FJNS3204R

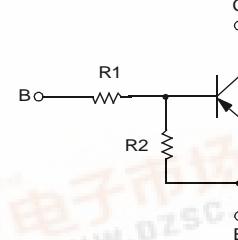


PNP Epitaxial Silicon Transistor

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	°C
T_{STG}	Storage Temperature	-55 ~ 150	°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	μA
h_{FE}	DC Current Gain	$V_{CE}=-5\text{V}$, $I_C=-5\text{mA}$	68			
$V_{CE(\text{sat})}$	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	$V_{CE}=-0.3\text{V}$, $I_C=-2\text{mA}$			-3	V
R_1	Input Resistor		32	47	62	$\text{K}\Omega$
R_1/R_2	Resistor Ratio		0.9	1	1.1	

Typical Characteristics

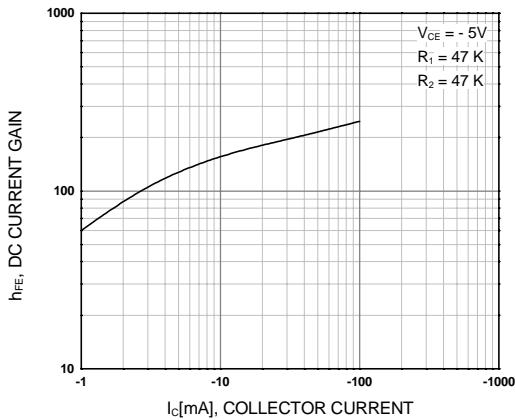


Figure 1. DC current Gain

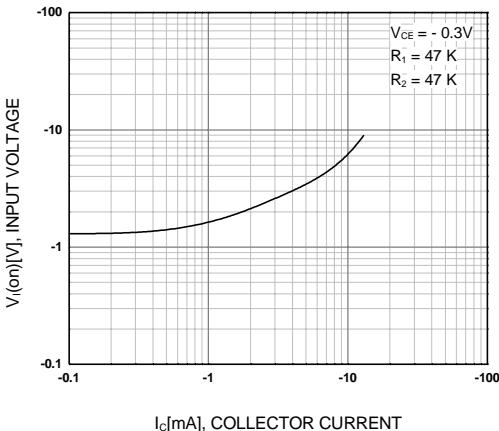


Figure 2. Input On Voltage

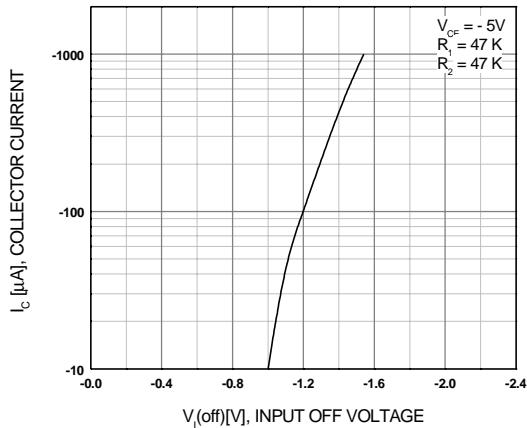


Figure 3. Input Off Voltage

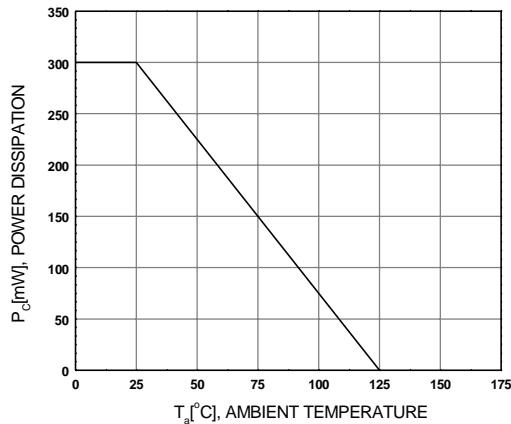
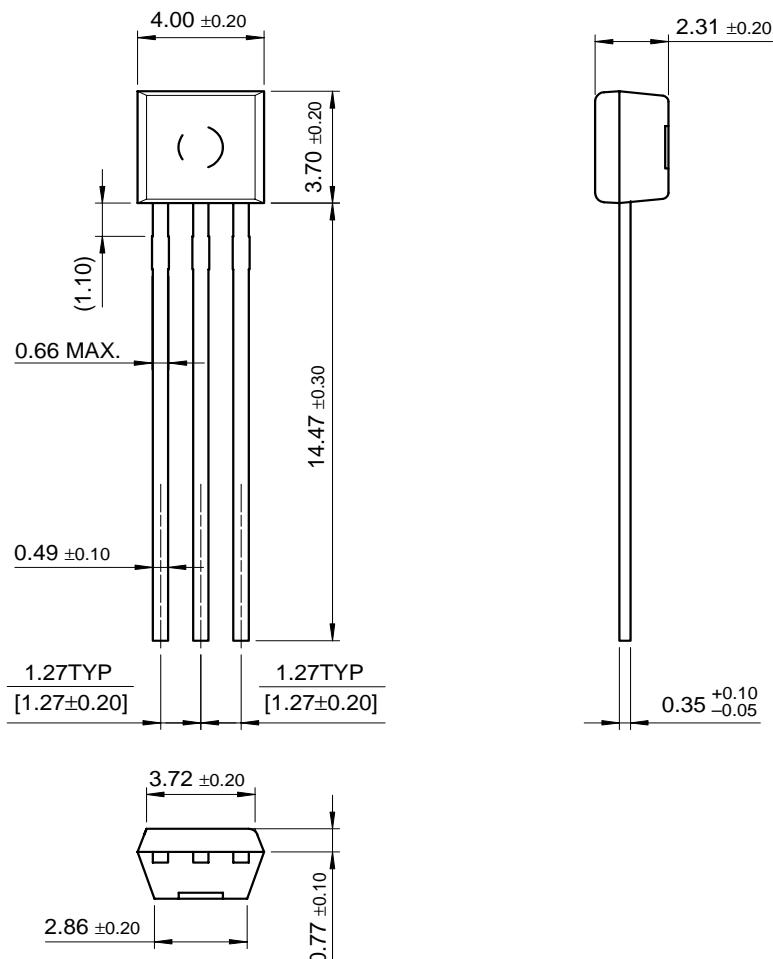


Figure 4. Power Derating

Package Dimensions

TO-92S



Dimensions in Millimeters

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