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## FJNS4209R

# Switching Application (Bias Resistor Built In) - Switching circuit, Inverter, Interface circuit, Driver Circuit

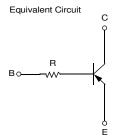
- Built in bias Resistor (R=4.7K $\Omega$ )
- Complement to FJNS3209R



# **PNP Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units	
V <sub>CBO</sub>	Collector-Base Voltage	-40	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	-40	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
I <sub>C</sub>	Collector Current	-100	mA	
P <sub>C</sub>	Collector Power Dissipation	300	mW	
T <sub>J</sub>	Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C	



### **Electrical Characteristics** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C} = -100 \mu A, I_{E} = 0$	-40			٧
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_C = -1 \text{mA}, I_B = 0$	-40			V
I <sub>CBO</sub>	Collector Cut-off Current	$V_{CB}$ = -30V, $I_{E}$ =0			-0.1	μΑ
h <sub>FE</sub>	DC Current Gain	$V_{CE}$ = -5V, $I_{C}$ = -1mA	100		600	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> = -1mA			-0.3	V
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0 f=1MHz		5.5		pF
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE}$ = -10V, $I_{C}$ = -5mA		200		MHz
R	Input Resistor		3.2	4.7	6.2	ΚΩ

# **Typical Characteristics**

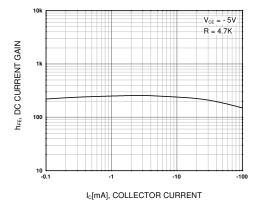


Figure 1. DC current Gain

Figure 2. Collector-Emitter Saturation Voltage

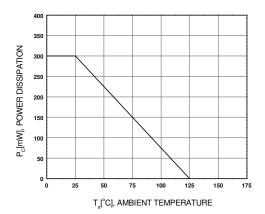
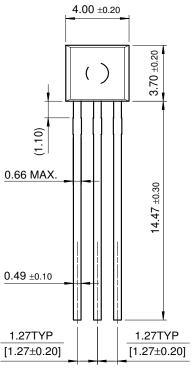
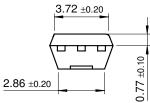


Figure 3. Power Derating

**TO-92S** 







Dimensions in Millimeters

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Rev. I1

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