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## **FJNS4206R**

### Switching Application (Bias Resistor Built In)

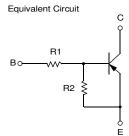
- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ( $R_1=10K\Omega$ ,  $R_2=47K\Omega$ )
- Complement to FJNS3206R



# 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	-50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-10	V
I <sub>C</sub>	Collector Current	-100	mA
P <sub>C</sub>	Collector Power Dissipation	300	mW
TJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C



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

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C} = -10\mu A, I_{E} = 0$	-50			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_{C} = -100 \mu A, I_{B} = 0$	-50			V
I <sub>CBO</sub>	Collector Cut-off Current	$V_{CB} = -40 \text{ V}, I_{E} = 0$			-0.1	μΑ
h <sub>FE</sub>	DC Current Gain	$V_{CE}$ = -5V, $I_{C}$ = -5mA	68			
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.5mA			-0.3	V
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0 f=1.0MHz		5.5		pF
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -10V, I <sub>C</sub> = -5mA		200		MHz
V <sub>I</sub> (off)	Input Off Voltage	$V_{CE}$ = -5V, $I_{C}$ = -100 $\mu$ A	-0.3			V
V <sub>I</sub> (on)	Input On Voltage	$V_{CE}$ = -0.3V, $I_{C}$ = -1mA			-1.4	V
R <sub>1</sub>	Input Resistor		7	10	13	ΚΩ
R <sub>1</sub> /R <sub>2</sub>	Resistor Ratio		0.19	0.21	0.24	

# **Typical Characteristics**

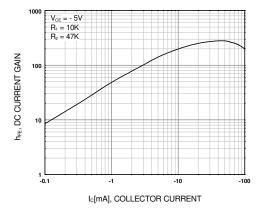


Figure 1. DC current Gain

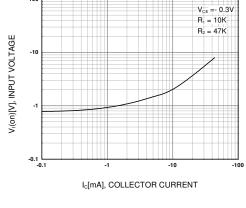


Figure 2. Input On Voltage

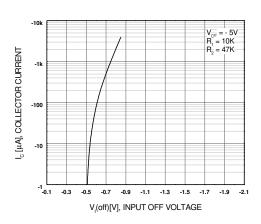


Figure 3. Input Off Voltage

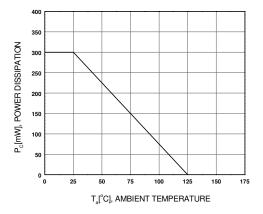
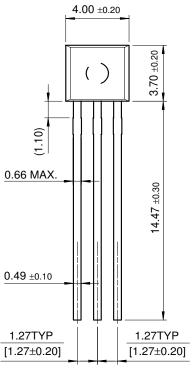
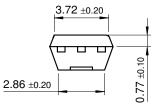


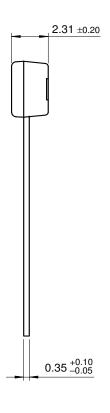
Figure 4. Power Derating

# **TO-92S**



**Package Dimensions** 





Dimensions in Millimeters

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$E^2CMOS^{TM}$	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
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Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
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Programmable Ac	tive Droop™	OPTOPLANAR™	SMART START™	

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