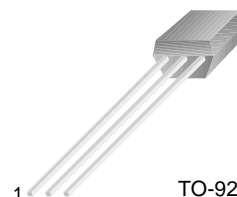


FJNS4205R

Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R_1=4.7K\Omega$, $R_2=10K\Omega$)
- Complement to FJNS3205R



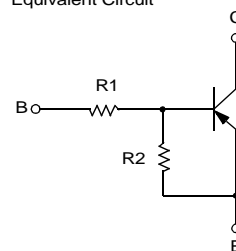
TO-92S
1. Emitter 2. Collector 3. Base

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	μA
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
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}$, $I_E = 0$ $f = 1.0\text{MHz}$		5.5		pF
f_T	Current Gain Bandwidth Product	$V_{CE} = -10\text{V}$, $I_C = -5\text{mA}$		200		MHz
$V_I(off)$	Input Off Voltage	$V_{CE} = -5\text{V}$, $I_C = -100\mu\text{A}$	-0.3			V
$V_I(on)$	Input On Voltage	$V_{CE} = -0.3\text{V}$, $I_C = -20\text{mA}$			-2.5	V
R_1	Input Resistor		3.2	4.7	6.2	$K\Omega$
R_1/R_2	Resistor Ratio		0.42	0.47	0.52	

Typical Characteristics

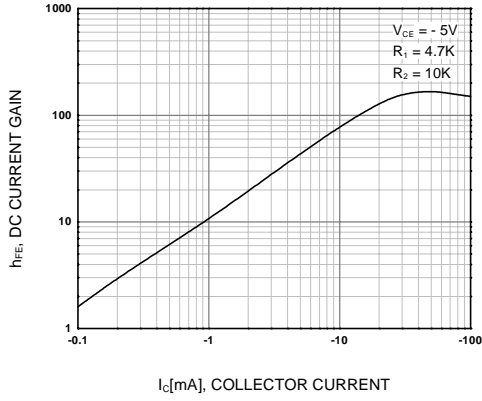


Figure 1. DC current Gain

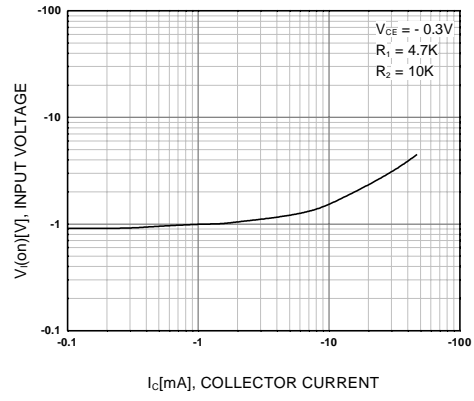


Figure 2. Input On Voltage

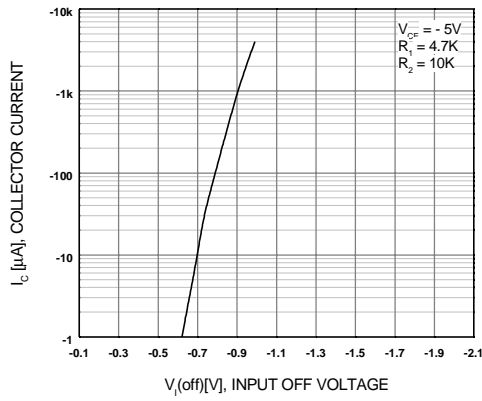


Figure 3. Input Off Voltage

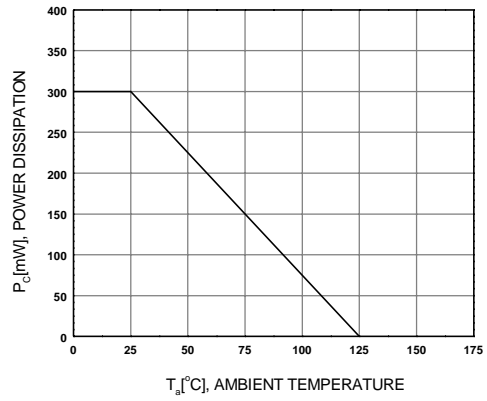


Figure 4. Power Derating

Package Dimensions

FJNS4205R

TO-92S



Dimensions in Millimeters

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Definition of Terms

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FJNS4205R

PNP Epitaxial Silicon Transistor

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Features

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ($R_1=4.7K\Omega$, $R_2=10K\Omega$)
- Complement to FJNS3205R

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Product status/pricing/packageing

BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
FJNS4205RBU	Full Production	 Full Production	\$0.0372	TO-92S	3	BULK	Line 1: R4205 Line 3: C&3
FJNS4205RTA	Full Production	 Full Production	\$0.0372	TO-92S	3	AMMO	Line 1: R4205 Line 3: C&3

* Fairchild 1,000 piece Budgetary Pricing

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BUY

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