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# **FJNS4213R**

# Switching Application (Bias Resistor Built In)

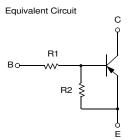
- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ( $R_1=2.2K\Omega$ ,  $R_2=47K\Omega$ )
- Complement to FJNS3213R



# **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
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C



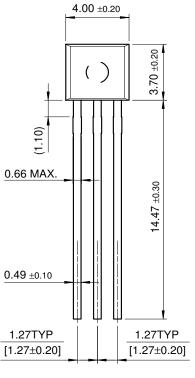
# **Electrical Characteristics** T<sub>a</sub>=25°C unless otherwise noted

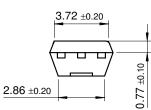
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{C} = -10\mu A, I_{E} = 0$	-50			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -100μA, I <sub>B</sub> =0	-50			V
I <sub>CBO</sub>	Collector Cutoff Current	$V_{CB}$ = -40V, $I_{E}$ =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
f <sub>T</sub>	Current Gain Bandwidth Product	$V_{CE}$ = -10V, $I_{C}$ =-5mA		200		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0 f=1.0MHz		5.5		pF
V <sub>I</sub> (off)	Input Off Voltage	$V_{CE}$ = -5V, $I_{C}$ = -100 $\mu$ A	-0.5			V
V <sub>I</sub> (on)	Input On Voltage	$V_{CE}$ = -0.2V, $I_{C}$ = -10mA			-1.1	V
R <sub>1</sub>	Input Resistor		1.5	2.2	2.9	ΚΩ
R <sub>1</sub> /R <sub>2</sub>	Resistor Ratio		0.042	0.047	0.052	

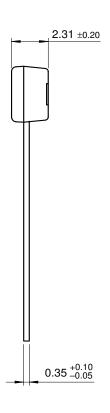


# FJNS4213R

**TO-92S** 







Dimensions in Millimeters

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E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I <sup>2</sup> C™	OCX™	RapidConfigure™	UHC™
Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET®
The Power Franchise™		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Rev. I1

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