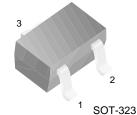


### **FJX4007R**

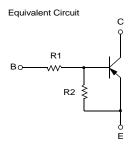
### Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ( $R_1=22K\Omega$ ,  $R_2=47K\Omega$ )
- Complement to FJX3007R



1. Base 2. Emitter 3. Collector





### **PNP Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** $T_a$ =25°C unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	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	200	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### $\textbf{Electrical Characteristics} \ \, \textbf{T}_{a} \!\!=\!\! 25^{\circ} \textbf{C} \ \, \text{unless otherwise noted}$

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 Cut-off Current	V <sub>CB</sub> = -40V, I <sub>E</sub> =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	$I_{C}$ = -10mA, $I_{B}$ = -0.5mA			-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
V <sub>I</sub> (off)	Input Off Voltage	$V_{CE}$ = -5V, $I_{C}$ = -100 $\mu$ A	-0.4			V
V <sub>I</sub> (on)	Input On Voltage	$V_{CE} = -0.3V, I_{C} = -2mA$			-2.5	V
R <sub>1</sub>	Input Resistor		15	22	29	ΚΩ
R <sub>1</sub> /R <sub>2</sub>	Resistor Ratio		0.42	0.47	0.52	

# **Typical Characteristics**

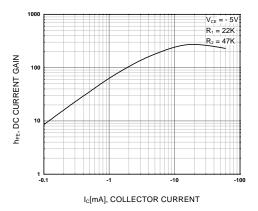


Figure 1. DC current Gain

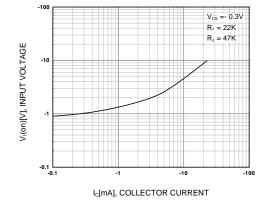


Figure 2. Input On Voltage

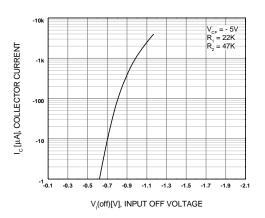


Figure 3. Input Off Voltage

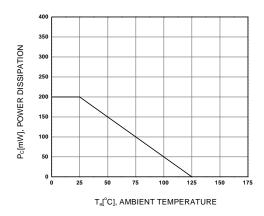
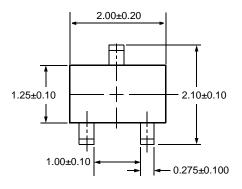
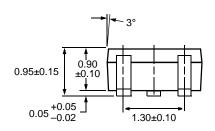


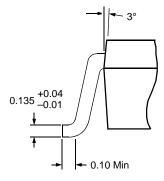
Figure 4. Power Derating

# **Package Demensions**

## **SOT-323**







Dimensions in Millimeters

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