

## **FJX4013R**

### Switching Application (Bias Resistor Built In)

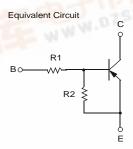
- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R<sub>1</sub>=2.2KΩ, R<sub>2</sub>=47KΩ)
- Complement to FJX3013R



SOT-323 1. Base 2. Emitter 3. Collector

Marking





## PNP Epitaxial Silicon Transistor

## Absolute Maximum Ratings Ta=25°C unless otherwise noted

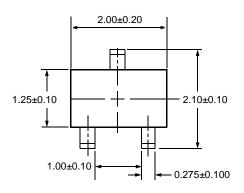
Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	-50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-10	V
I <sub>C</sub>	Collector Current	-100	mA
P <sub>C</sub>	Collector Power Dissipation	200	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

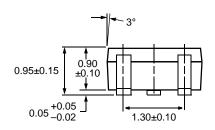
### Electrical Characteristics T<sub>a</sub>=25°C unless otherwise noted

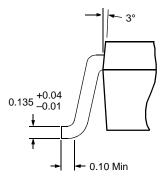
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_C = -10\mu A, I_E = 0$	-50			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	$I_C = -100 \mu A, I_B = 0$	-50	68		V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -40V, I <sub>E</sub> =0		1.734	-0.1	μΑ
h <sub>FE</sub>	DC Current Gain	$V_{CE} = -5V$ , $I_{C} = -5mA$	68	- NH		
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	$I_C = -10 \text{mA}, I_B = -0.5 \text{mA}$			-0.3	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -10V, I <sub>C</sub> =-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	

# **Package Dimensions**

# SOT-323







Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench <sup>®</sup>	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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E <sup>2</sup> CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	$I^2C^{TM}$	$OCX^{TM}$	RapidConfigure™	UHC™ _
Across the board.	. Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
The Power Franc	hise™	OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX™
Programmable Ad	ctive Droop™	OPTOPLANAR™	SMART START™	

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