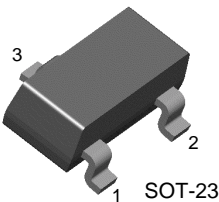




FJV3111R

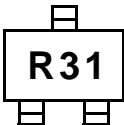
Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor ( $R=22K\Omega$ )
- Complement to FJV4111R

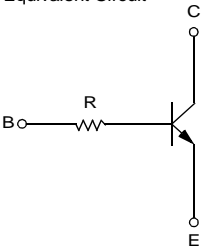


1. Base 2. Emitter 3. Collector

Marking



Equivalent Circuit



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings  $T_a=25^{\circ}\text{C}$  unless otherwise noted

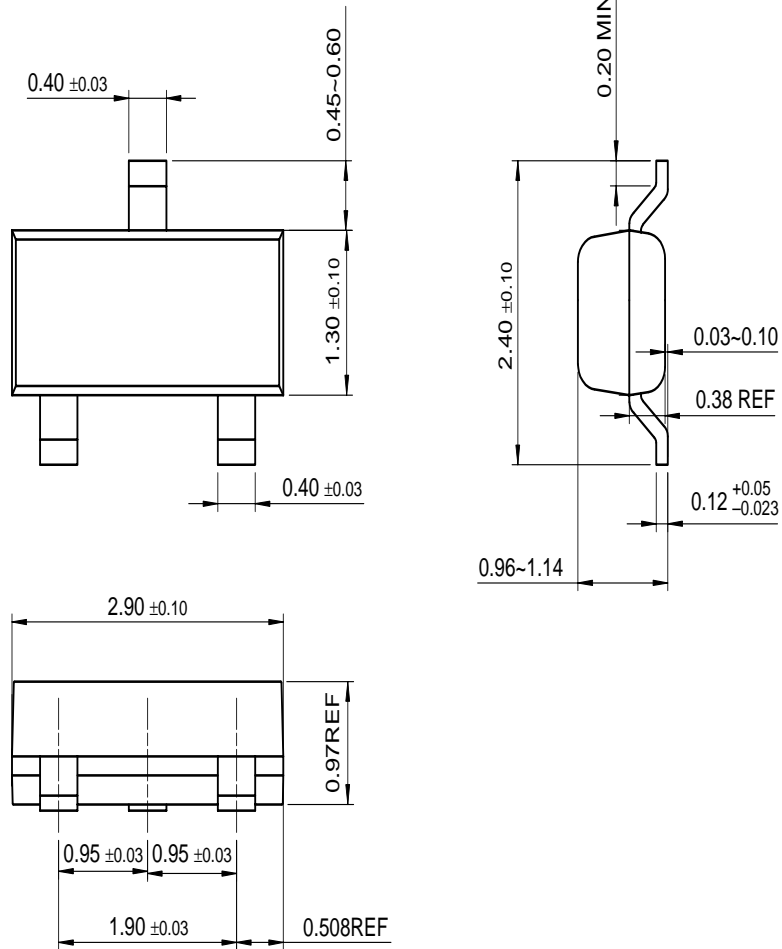
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	100	mA
$P_C$	Collector Power Dissipation	200	mW
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^{\circ}\text{C}$

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	$I_C=100\mu\text{A}$ , $I_E=0$	40			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_E=1\text{mA}$ , $I_B=0$	40			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=30\text{V}$ , $I_E=0$			0.1	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE}=5\text{V}$ , $I_C=1\text{mA}$	100		600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{mA}$ , $I_B=1\text{mA}$			0.3	V
$C_{ob}$	Output Capacitance	$V_{CB}=10\text{V}$ , $I_E=0$ $f=1\text{MHz}$		3.7		pF
$f_T$	Current Gain Bandwidth Product	$V_{CE}=10\text{V}$ , $I_C=5\text{mA}$		250		MHz
R	Input Resistor		15	22	29	$K\Omega$

## Package Dimensions

## SOT-23



Dimensions in Millimeters

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Across the board. Around the world. <sup>™</sup>		OCXPro <sup>™</sup>	RapidConnect <sup>™</sup>	UltraFET <sup>®</sup>
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## PRODUCT STATUS DEFINITIONS

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