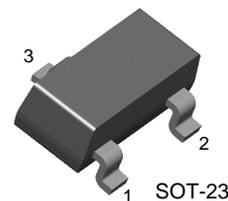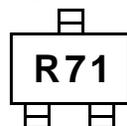# FAIRCHILD
SEMICONDUCTOR®

FJV4101R

Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R$_1$=4.7KΩ, R$_2$=4.7KΩ)
- Complement to FJV3101R

SOT-23
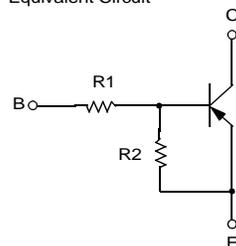1. Base 2. Emitter 3. Collector

Marking

R71

Equivalent Circuit

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$_{CEO}$	Collector-Emitter Voltage	-50	V
V$_{EBO}$	Emitter-Base Voltage	-10	V
I$_C$	Collector Current	-100	mA
P$_C$	Collector Power Dissipation	200	mW
T$_J$	Junction Temperature	150	°C
T$_{STG}$	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T$_a$=25°C unless otherwise noted

| Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV$_{CBO}$	Collector-Base Breakdown Voltage	I$_C$= -10μA, I$_E$=0	-50			V
BV$_{CEO}$	Collector-Emitter Breakdown Voltage	I$_C$= -100μA, I$_B$=0	-50			V
I$_{CBO}$	Collector Cut-off Current	V$_{CB}$= -40V, I$_E$=0			-0.1	μA
h$_{FE}$	DC Current Gain	V$_{CE}$= -5V, I$_C$= -10mA	20			
V$_{CE}$(sat)	Collector-Emitter Saturation Voltage	I$_C$= -10mA, I$_B$= -0.5mA			-0.3	V
f$_T$	Current Gain Bandwidth Product	V$_{CE}$= -10V, I$_C$=-5mA		200		MHz
C$_{ob}$	Output Capacitance	V$_{CB}$= -10V, I$_E$=0 f=1.0MHz		5.5		pF
V$_I$(off)	Input Off Voltage	V$_{CE}$= -5V, I$_C$= -100μA	-0.5			V
V$_I$(on)	Input On Voltage	V$_{CE}$= -0.3V, I$_C$= -20mA			-3	V
R$_1$	Input Resistor		3.2	4.7	6.2	KΩ
R$_1$/R$_2$	Resistor Ratio		0.9	1	1.1	

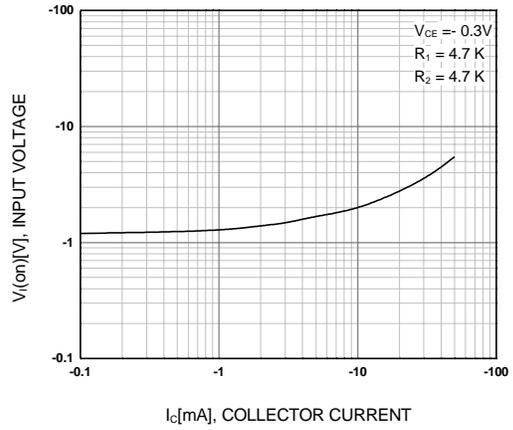# Typical Characteristics
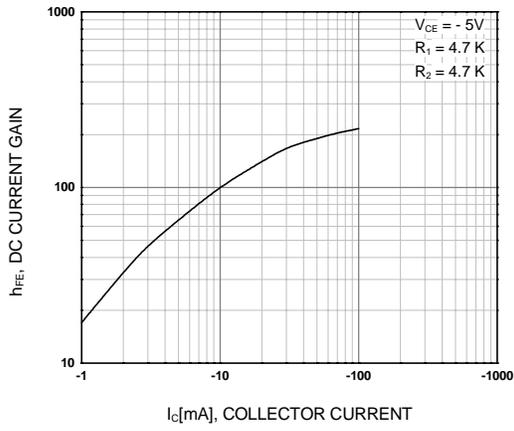
Figure 1. DC current Gain

Figure 2. Input On Voltage
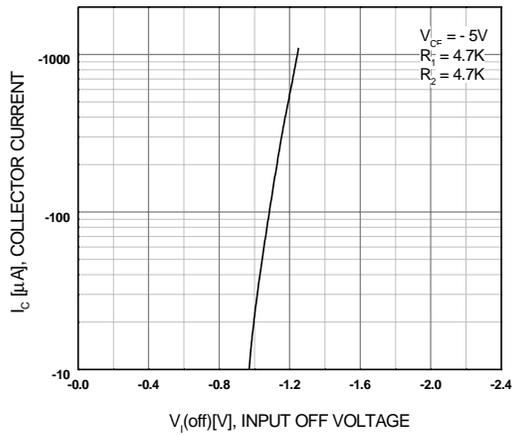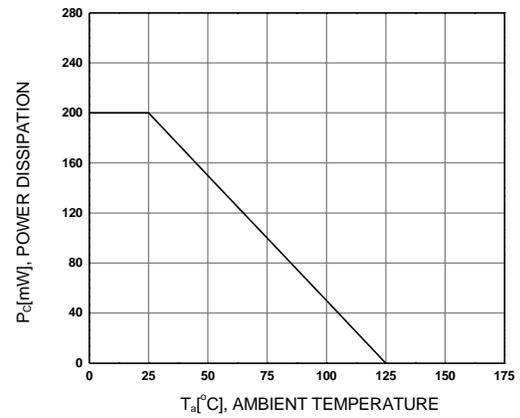

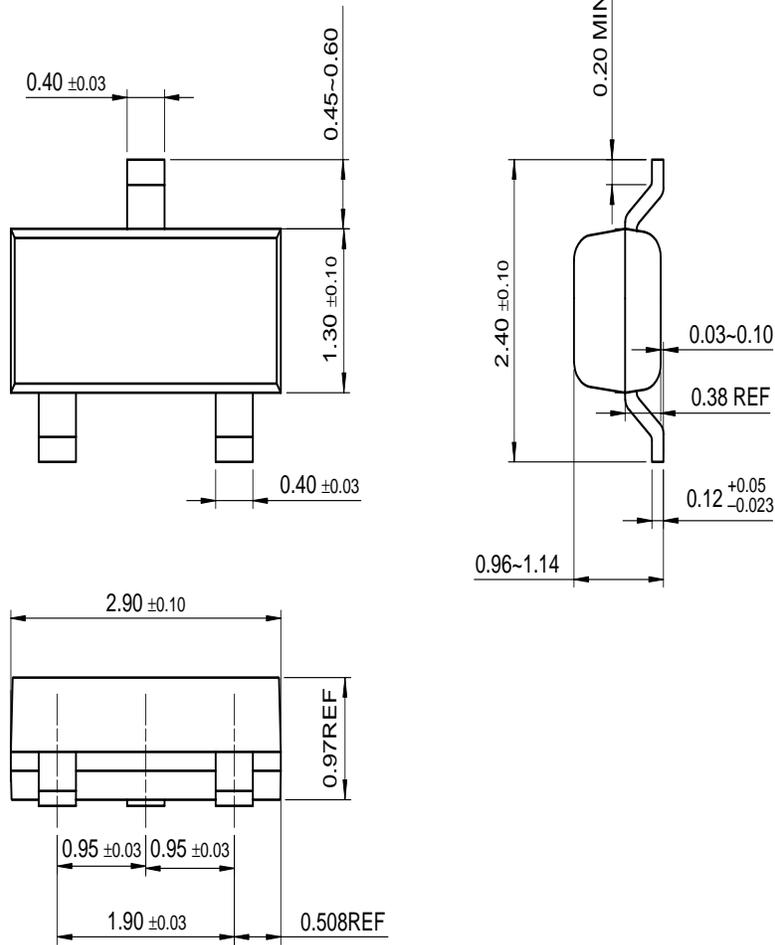**Figure 3. Input Off Voltage**

Figure 4. Power Derating

Package Demensions

SOT-23

0.40 ±0.03

0.45~0.60

1.30 ±0.10

0.40 ±0.03

0.20 MIN

2.40 ±0.10

0.03~0.10

0.38 REF

$0.12 \, ^{+0.05}_{-0.023}$

0.96~1.14

2.90 ±0.10

0.97REF

0.95 ±0.03

0.95 ±0.03

1.90 ±0.03

0.508REF

Dimensions in Millimeters

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DOME™	HiSeC™	Power247™	SuperSOT™-6
EcoSPARK™	I^2C™	PowerTrench®	SuperSOT™-8
E^2CMOS™	ISOPLANAR™	QFET™	SyncFET™
EnSigna™	LittleFET™	QS™	TinyLogic™
FACT™	MicroFET™	QT Optoelectronics™	TruTranslation™
FACT Quiet series™	MicroPak™	Quiet Series™	UHC™
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Definition of Terms

Datasheet Identification	Product Status	Definition
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Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

FJV4101R
PNP Epitaxial Silicon Transistor

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Features

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
FJV4101RMTF	Full Production	$0.056	[SOT-23](#)	3	TAPE REEL

* 1,000 piece Budgetary Pricing

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