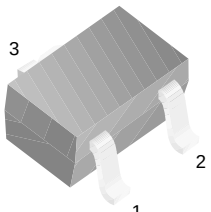
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FJX3006R

Switching Application (Bias Resistor Built In)

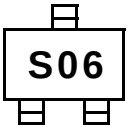
- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R_1=10KΩ, R_2=47KΩ)
- Complement to FJX4006R



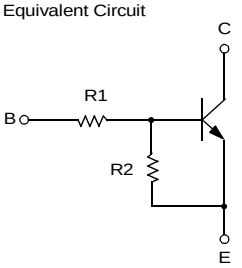
SOT-323

1. Base 2. Emitter 3. Collector

Marking



Equivalent Circuit



NPN 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=5mA	68			
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C=10mA, I_B=0.5mA			0.3	V
C_{ob}	Output Capacitance	V_{CE}=10mA, I_E=0 f=1.0MHz		3.7		pF
f_T	Current Gain Bandwidth Product	V_{CB}=10V, I_C=5mA		250		MHz
V_I(off)	Input Off Voltage	V_{CE}=5V, I_C=100μA	0.3			V
V_I(on)	Input On Voltage	V_{CE}=0.3V, I_C=1mA			1.4	V
R_1	Input Resistor		7	10	13	KΩ
R_1/R_2	Resistor Ratio		0.19	0.21	0.24	

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Typical Characteristics

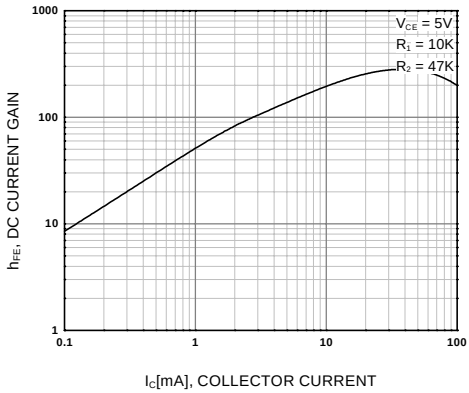


Figure 1. DC current Gain

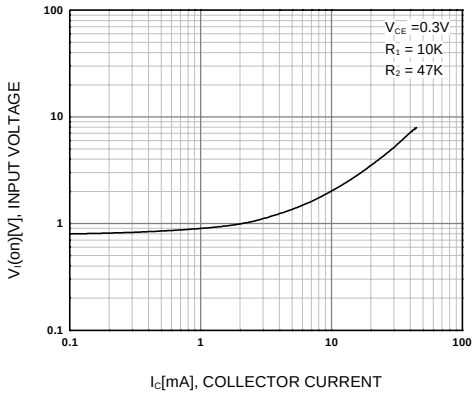


Figure 2. Input On Voltage

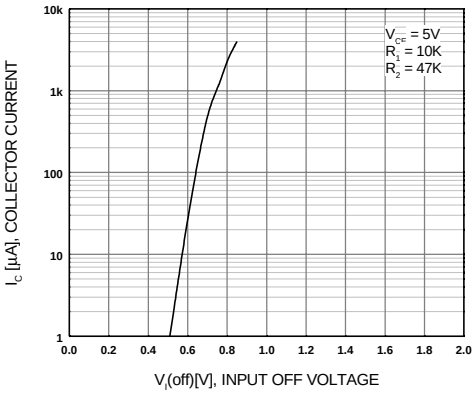


Figure 3. Input Off Voltage

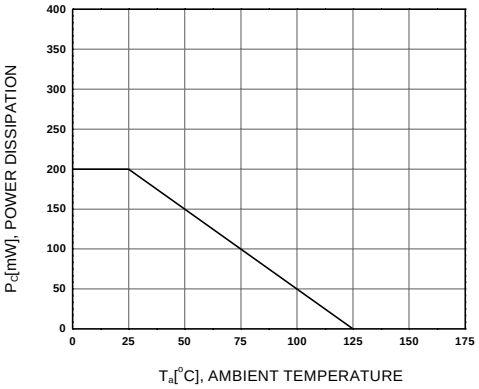
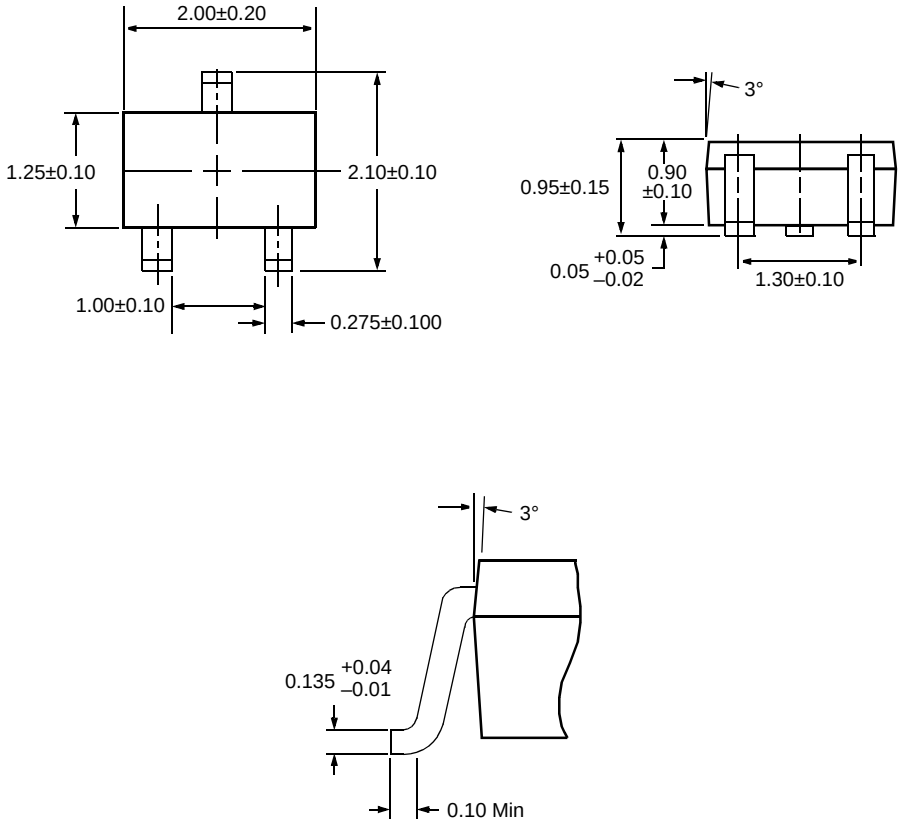


Figure 4. Power Derating

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Package Dimensions

SOT-323



Dimensions in Millimeters

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Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9