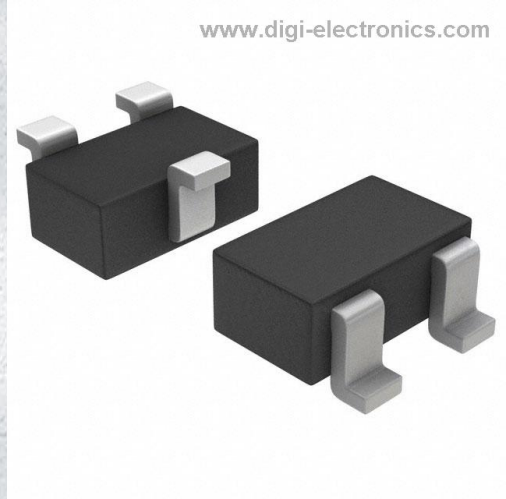
FJX3015RTF Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	FJX3015RTF-DG
Manufacturer	onsemi
Manufacturer Product Number	FJX3015RTF
Description	TRANS PREBIAS NPN 50V SOT323
Detailed Description	Pre-Biased Bipolar Transistor (BJT) NPN - Pre-Biased 50 V 100 mA 250 MHz 200 mW Surface Mount SOT-323

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
FJX3015RTF	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN - Pre-Biased	100 mA
Voltage - Collector Emitter Breakdown (Max):	Resistor - Base (R1):
50 V	2.2 kOhms
Resistor - Emitter Base (R2):	DC Current Gain (hFE) (Min) @ Ic, Vce:
10 kOhms	33 @ 10mA, 5V
Vce Saturation (Max) @ Ib, Ic:	Current - Collector Cutoff (Max):
300mV @ 500µA, 10mA	100nA (ICBO)
Frequency - Transition:	Power - Max:
250 MHz	200 mW
Mounting Type:	Package / Case:
Surface Mount	SC-70, SOT-323
Supplier Device Package:	Base Product Number:
SOT-323	FJX301

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0075

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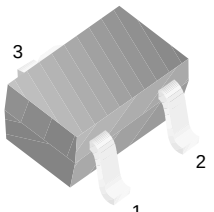
FJX3015R

Switching Application (Bias Resistor Built In)

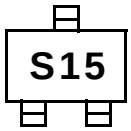
- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R1=2.2KΩ, R2=10KΩ)



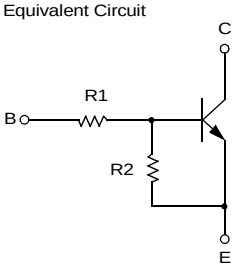
SOT-323

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=10mA	33			
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		250		MHz
C_{ob}	Output Capacitance	V_{CB}=10V, I_E=0 f=1.0MHz		3.7		pF
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=20mA			3	V
R_1	Input Resistor		1.5	2.2	2.9	KΩ
R_1/R_2	Resistor Ratio		0.20	0.22	0.25	

Typical Characteristics

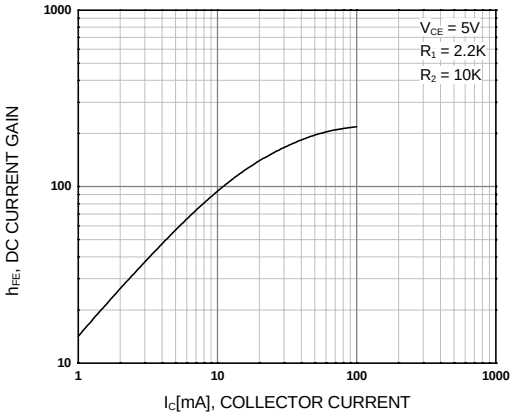


Figure 1. DC current Gain

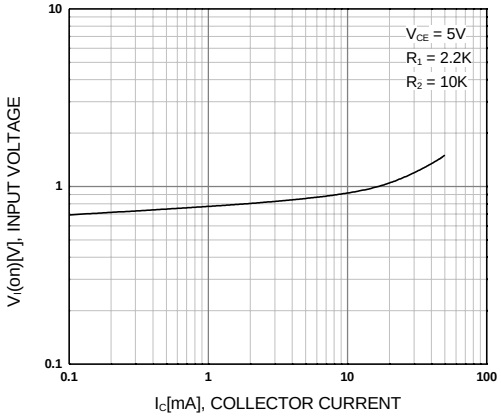


Figure 2. Input On Voltage

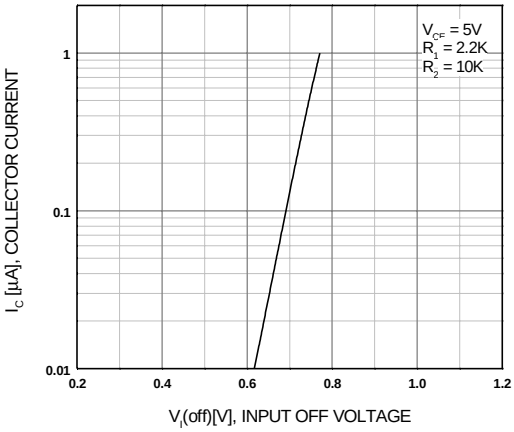


Figure 3. Input Off Voltage

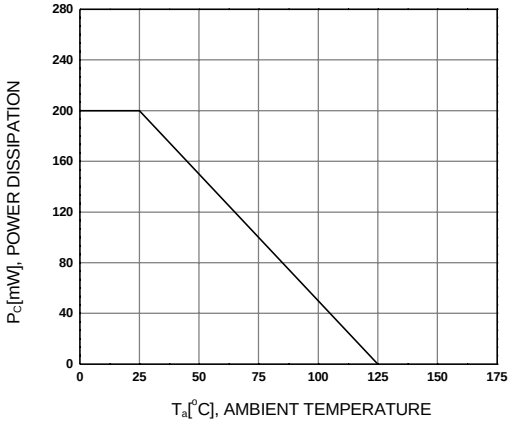
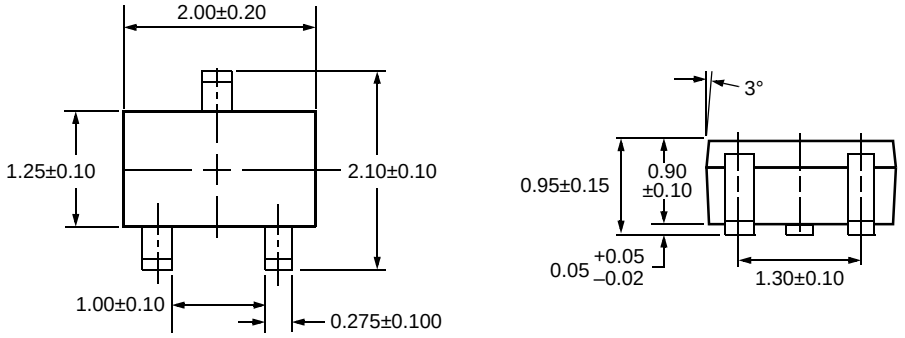


Figure 4. Power Derating

Package Dimensions

SOT-323



Dimensions in Millimeters

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Bottomless™	FAST®	LittleFET™	Power247™	SuperSOT™-3
CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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.

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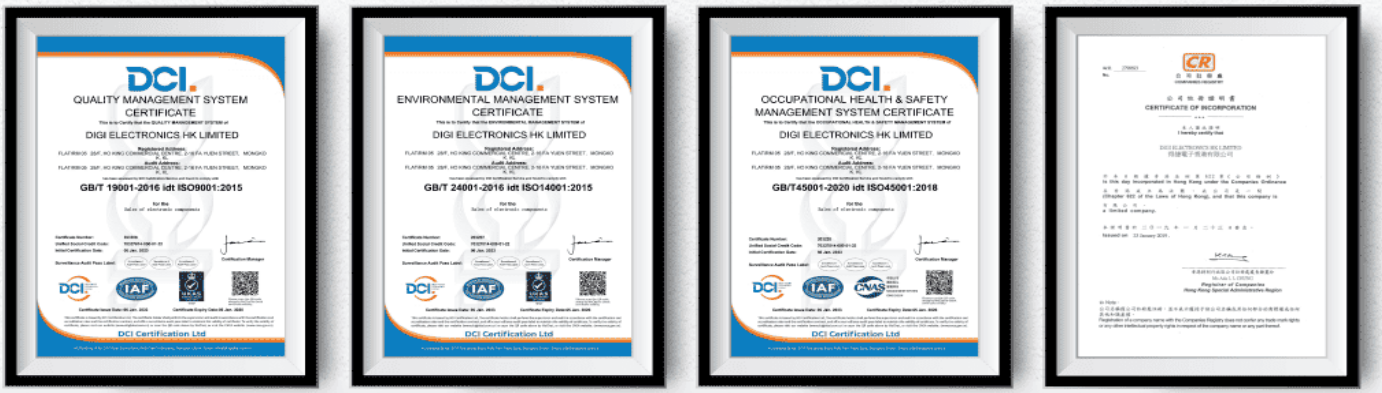

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