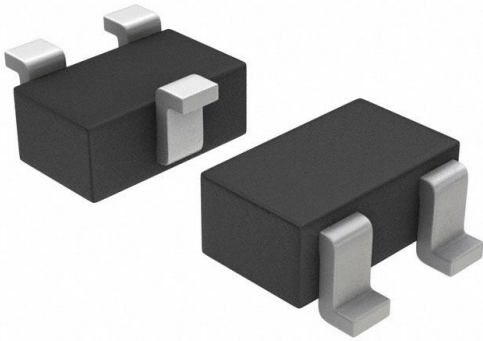


FJX945GTF Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	FJX945GTF-DG
Manufacturer	onsemi
Manufacturer Product Number	FJX945GTF
Description	TRANS NPN 50V 0.15A SOT323
Detailed Description	Bipolar (BJT) Transistor NPN 50 V 150 mA 300MHz 200 mW Surface Mount SOT-323



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

FJX945GTF

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

50 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

200 mW

Operating Temperature:

150°C (TJ)

Package / Case:

SC-70, SOT-323

Base Product Number:

FJX945

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

150 mA

Vce Saturation (Max) @ Ib, Ic:

300mV @ 10mA, 100mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

200 @ 1mA, 6V

Frequency - Transition:

300MHz

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-323

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

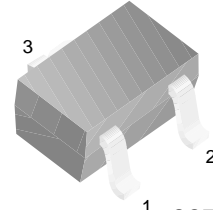
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FAIRCHILD
SEMICONDUCTOR®

FJX945

Audio Frequency Amplifier High Frequency OSC.

- Collector-Base Voltage $V_{CBO}=60V$
- High Current Gain Bandwidth Product $f_T=300MHz$ (Typ)
- Complement to FJX733



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

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	150	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

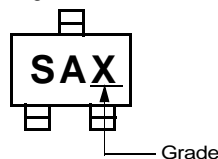
Electrical Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10mA, I_B=0$	50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=10\mu A, I_C=0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=40V, I_E=0$			0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=3V, I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=6V, I_C=1.0mA$	70		700	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=100mA, I_B=10mA$		0.15	0.3	V
f_T	Current Gain Bandwidth Product	$V_{CE}=6V, I_C=10mA$		300		MHz
C_{ob}	Output Capacitance	$V_{CB}=6V, I_E=0$ $f=1MHz$		2.5		pF
NF	Noise Figure	$V_{CE}=6V, I_E=-0.5mA$ $f=1KHz, R_S=500\Omega$		4.0		dB

h_{FE} Classification

Classification	O	Y	G	L
h_{FE}	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700

Marking



Typical Characteristics

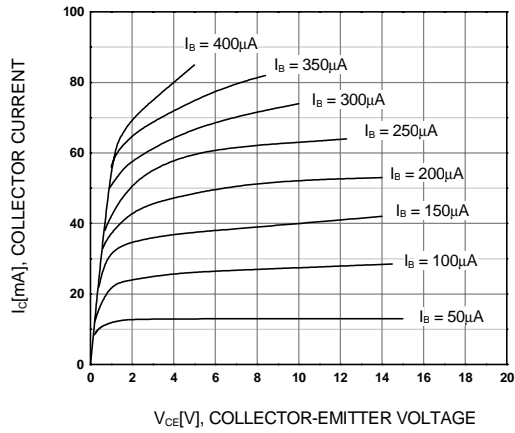


Figure 1. Static Characteristic

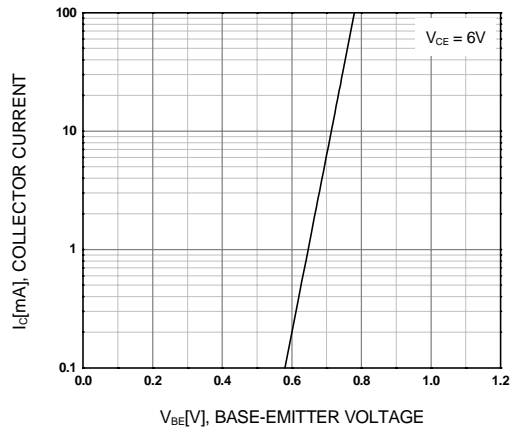


Figure 2. Transfer Characteristic

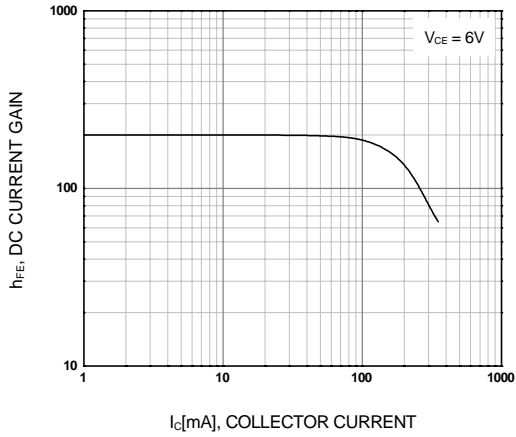


Figure 3. DC current Gain

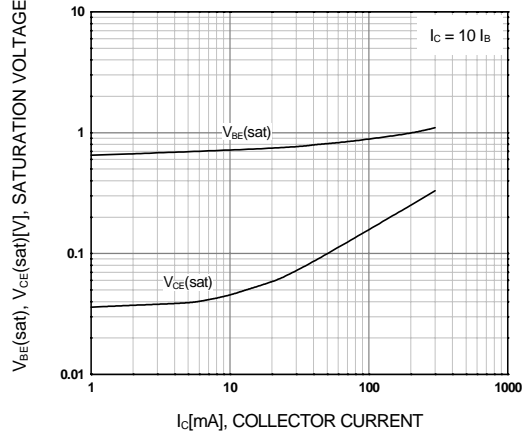


Figure 4. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

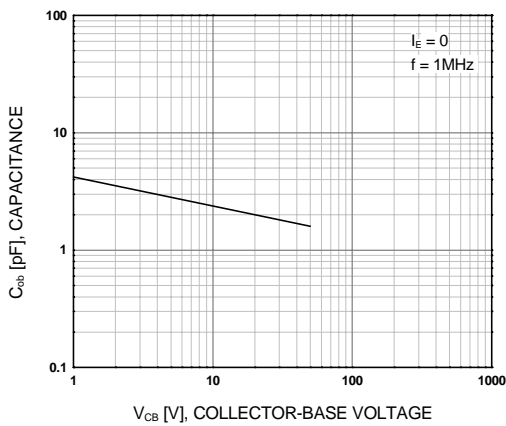


Figure 5. Collector Output Capacitance

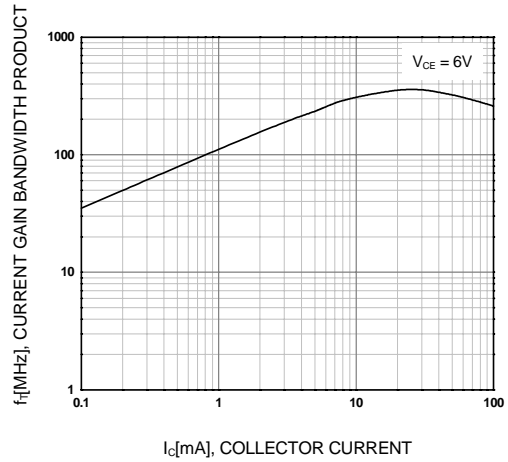
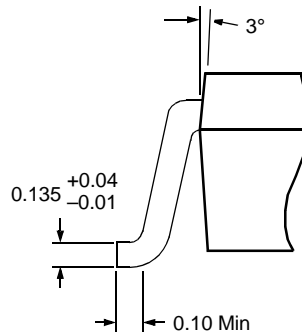
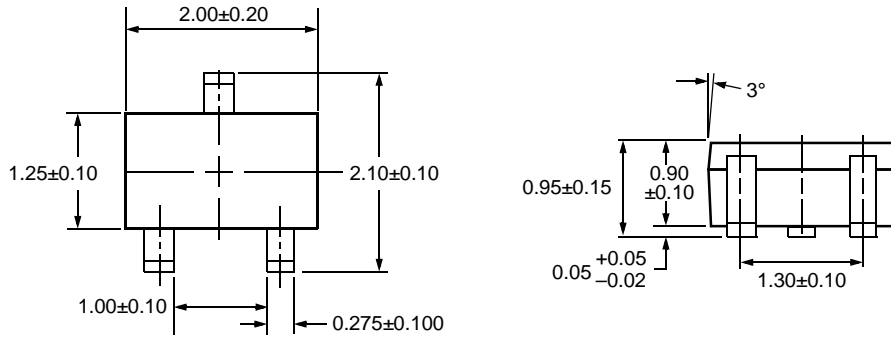


Figure 6. Current Gain Bandwidth Product

Package Dimensions

SOT-323



Dimensions in Millimeters

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