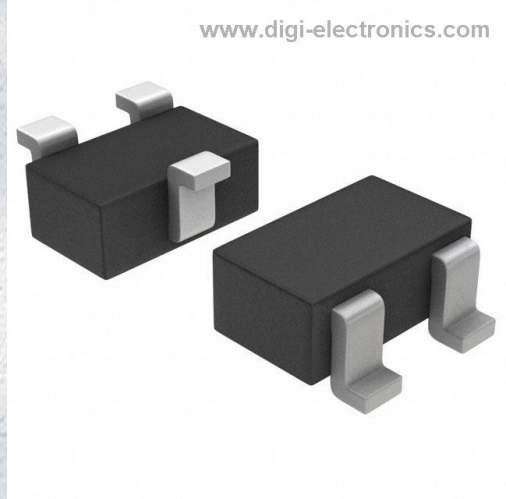
FJX945GTF Datasheet



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

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
FJX945GTF	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	150 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
50 V	300mV @ 10mA, 100mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	200 @ 1mA, 6V
Power - Max:	Frequency - Transition:
200 mW	300MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
SC-70, SOT-323	SOT-323
Base Product Number:	
FJX945	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0075	

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www.onsemi.com

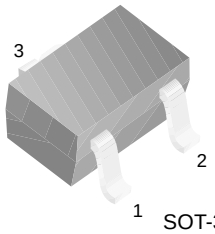
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes 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.

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



SOT-323

1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°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	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

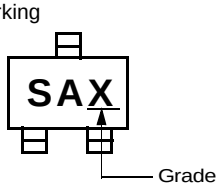
Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, 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=10μA, 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=500Ω		4.0		dB

h_{FE} Classification

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

Marking



Typical Characteristics

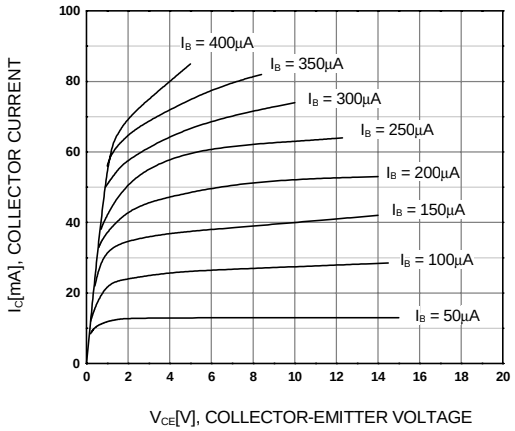


Figure 1. Static Characteristic

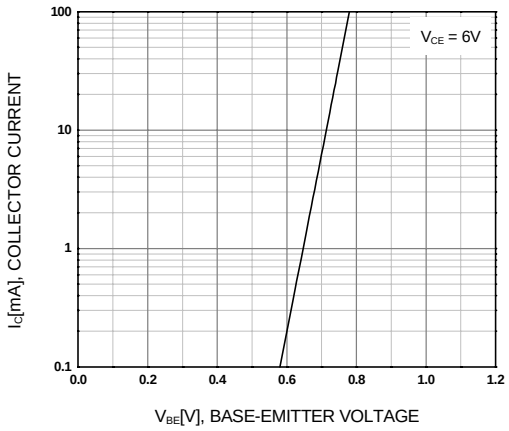


Figure 2. Transfer Characteristic

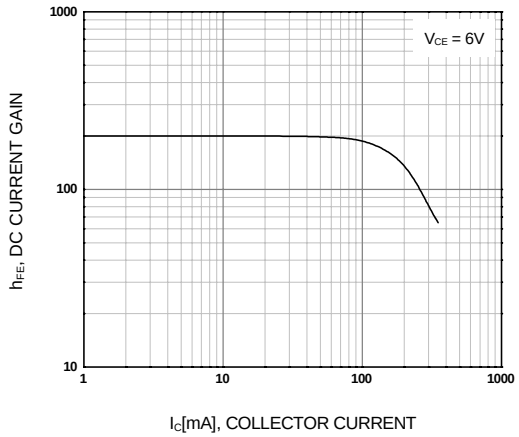


Figure 3. DC current Gain

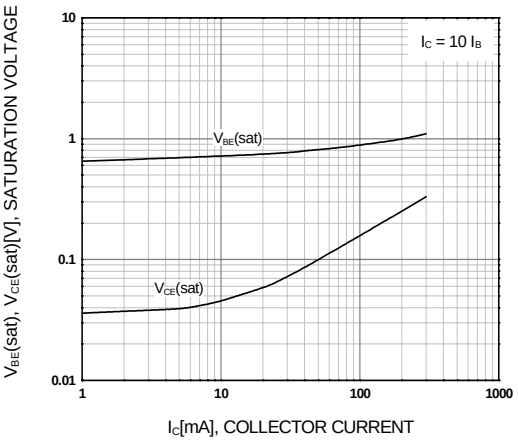


Figure 4. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

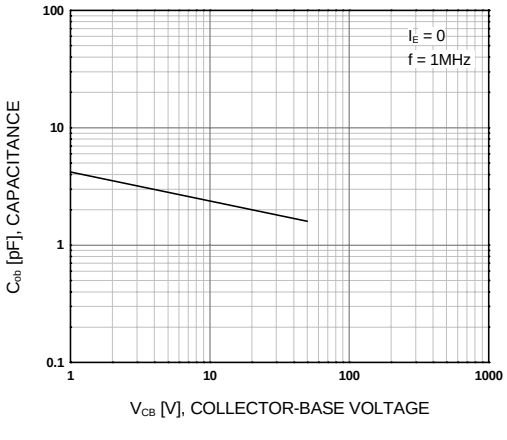


Figure 5. Collector Output Capacitance

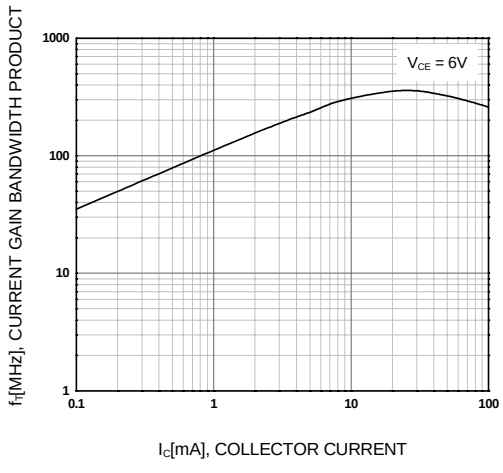
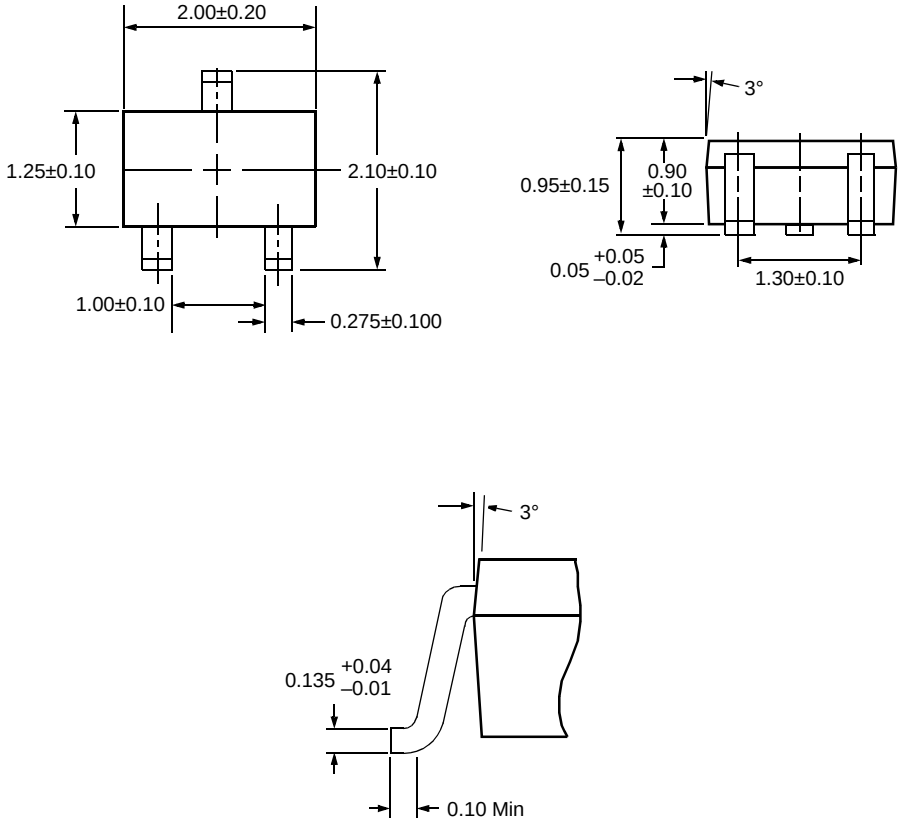


Figure 6. Current Gain Bandwidth Product

Package Dimensions

SOT-323



Dimensions in Millimeters

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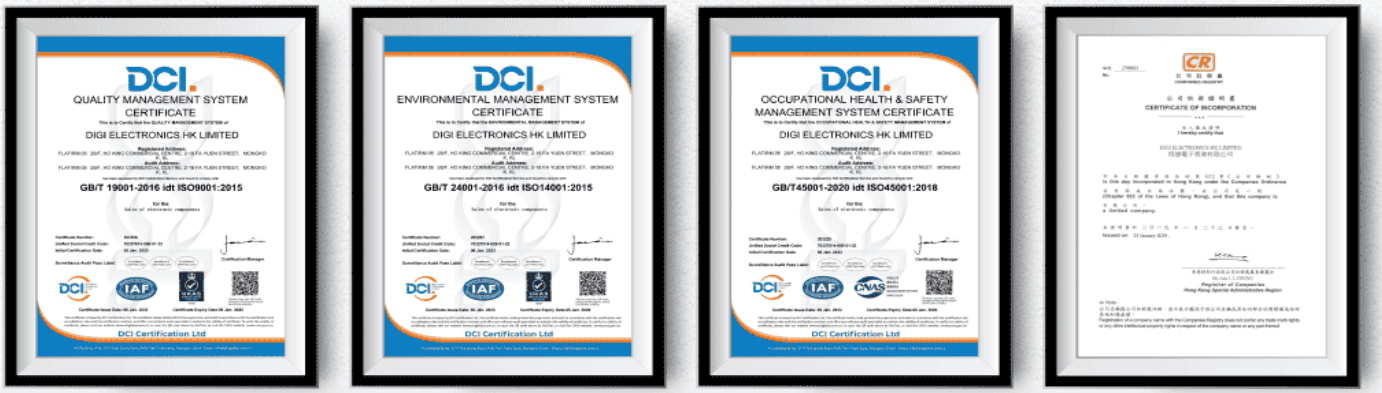

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