SS9011HBU Datasheet

DiGi Electronics Part Number	SS9011HBU-DG
Manufacturer	onsemi
Manufacturer Product Number	SS9011HBU
Description	TRANS NPN 30V 0.03A TO92-3
Detailed Description	Bipolar (BJT) Transistor NPN 30 V 30 mA 2MHz 400 m W Through Hole TO-92-3

https://www.DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
SS9011HBU	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	30 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
30 V	300mV @ 1mA, 10mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA (ICBO)	97 @ 1mA, 5V
Power - Max:	Frequency - Transition:
400 mW	2MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA)	TO-92-3
Base Product Number:	
SS9011	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0095

FAIRCHILD
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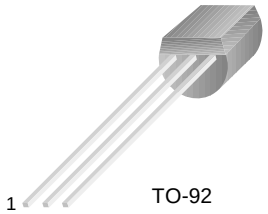
SS9011

AM Converter, AM/FM IF Amplifier
General Purpose Transistor



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TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	30	mA
P_C	Collector Power Dissipation	400	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	50			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C =1mA, I_B =0	30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 100μA, I_C =0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 50V, I_E =0			100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C =0			100	nA
h_{FE}	DC Current Gain	V_{CE} = 5V, I_C = 1mA	28	90	198	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C = 10mA, I_B = 1mA		0.08	0.3	V
V_{BE} (on)	Base-Emitter on Voltage	V_{CE} = 5V, I_C = 1mA	0.65	0.7	0.75	V
C_{ob}	Output Capacitance	V_{CB} = 10V, I_E = 0 f = 1MHz	 150	1.5 370		pF
f_T	Current Gain Bandwidth Product	V_{CE} = 5V, I_C = 1mA		2.0		MHz
NF	Noise Figure	V_{CE} = 5V, I_C = 1.0 mA f=1MHz, R_S = 500Ω			4.0	dB

h_{FE} Classification

Classification	D	E	F	G	H	I
h_{FE}	28 ~ 45	39 ~ 60	54 ~ 80	72 ~ 108	97 ~ 146	132 ~ 198

Typical Characteristics

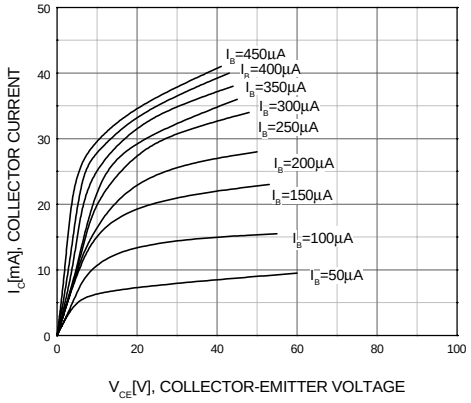


Figure 1. Static Characteristic

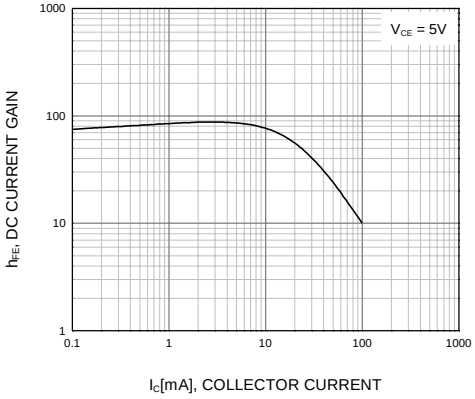


Figure 2. DC current Gain

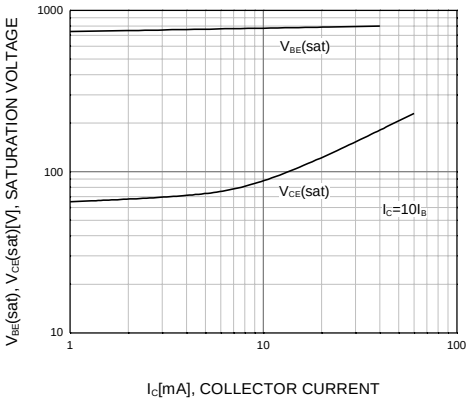


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

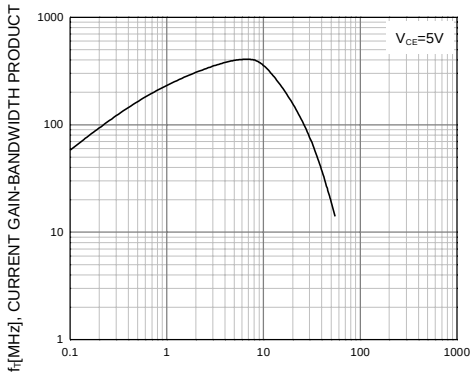
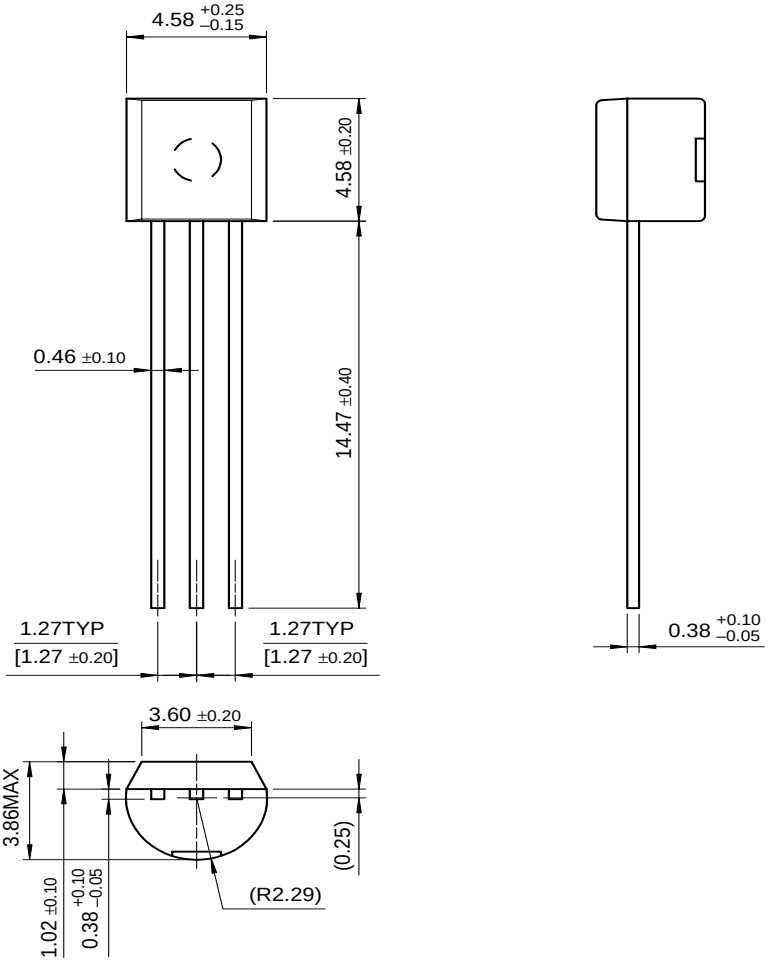


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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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.
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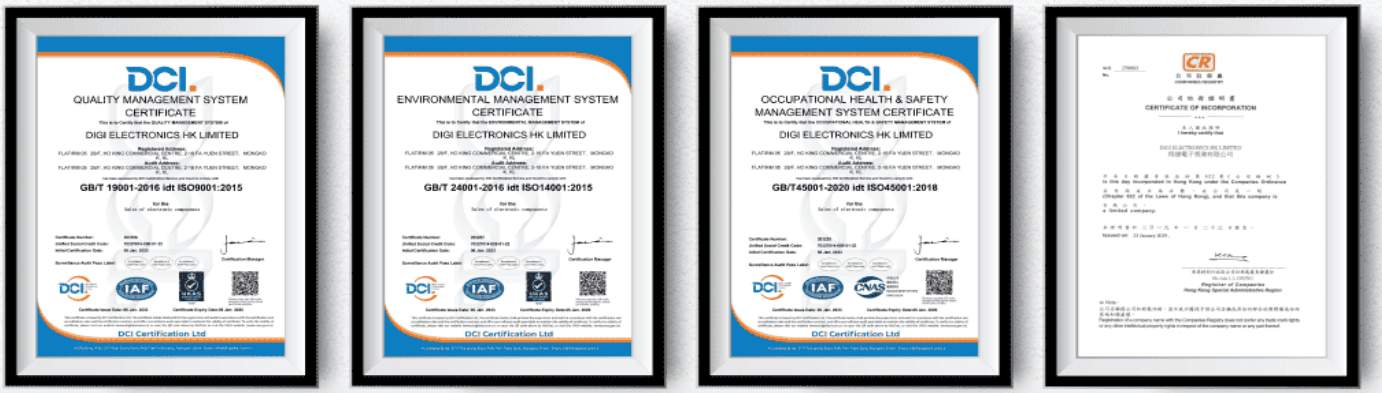

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