Rochester Electronics

Datasheet

Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All recreations are done with the approval of the OCM.

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceed the OCM data sheet.

Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-35835
    - Class Q Military
    - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)

    - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OEM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

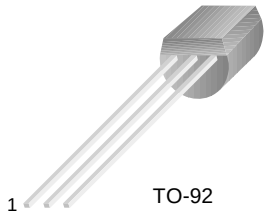
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FAIRCHILD
SEMICONDUCTOR®

SS9018

AM/FM Amplifier, Local Oscillator of FM/VHF Tuner

- High Current Gain Bandwidth Product f_T=1.1 GHz (Typ)



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	30	V
V_{CEO}	Collector-Emitter Voltage	15	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	50	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	30			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C =1.0mA, I_B =0	15			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E =100μA, I_C =0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} =12V, I_E =0			50	nA
h_{FE}	Emitter Cut-off Current	V_{CE} =5V, I_C =1.0mA	28	100	198	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C =10mA, I_B =1mA			0.5	V
C_{ob}	Output Capacitance	V_{CB} =10V, I_E =0 f=1MHz		1.3	1.7	pF
f_T	Current Gain Bandwidth Product	V_{CE} =5V, I_C =5mA	700	1100		MHz

h_{FE} Classification

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

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Typical Characteristics

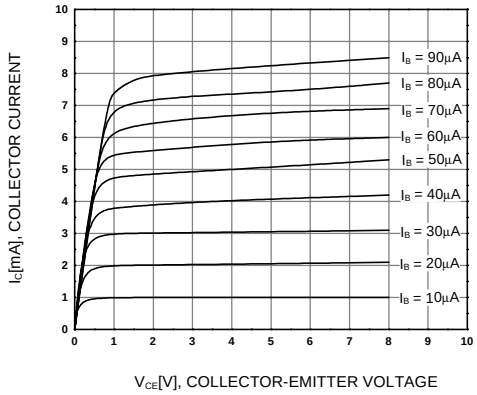


Figure 1. Static Characteristic

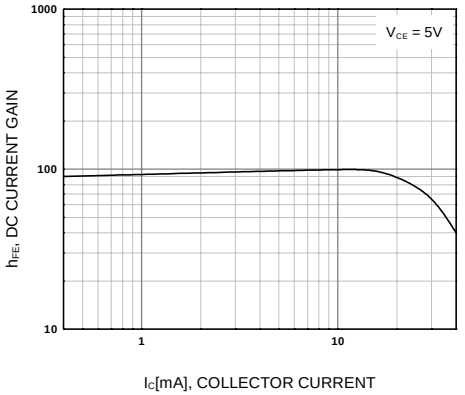


Figure 2. DC current Gain

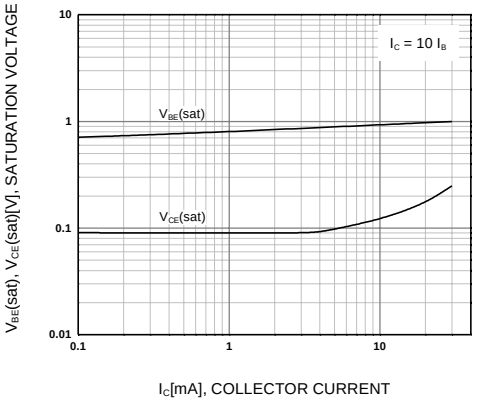


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

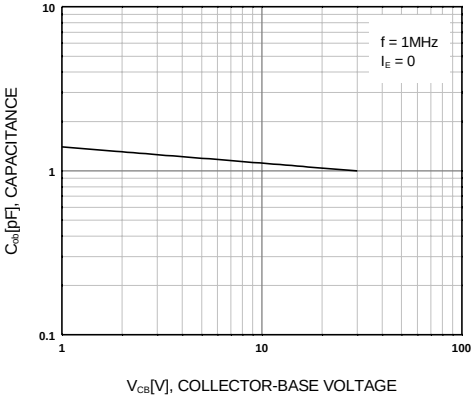


Figure 4. Output Capacitance

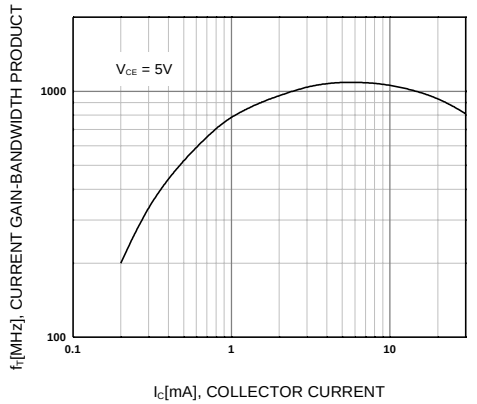
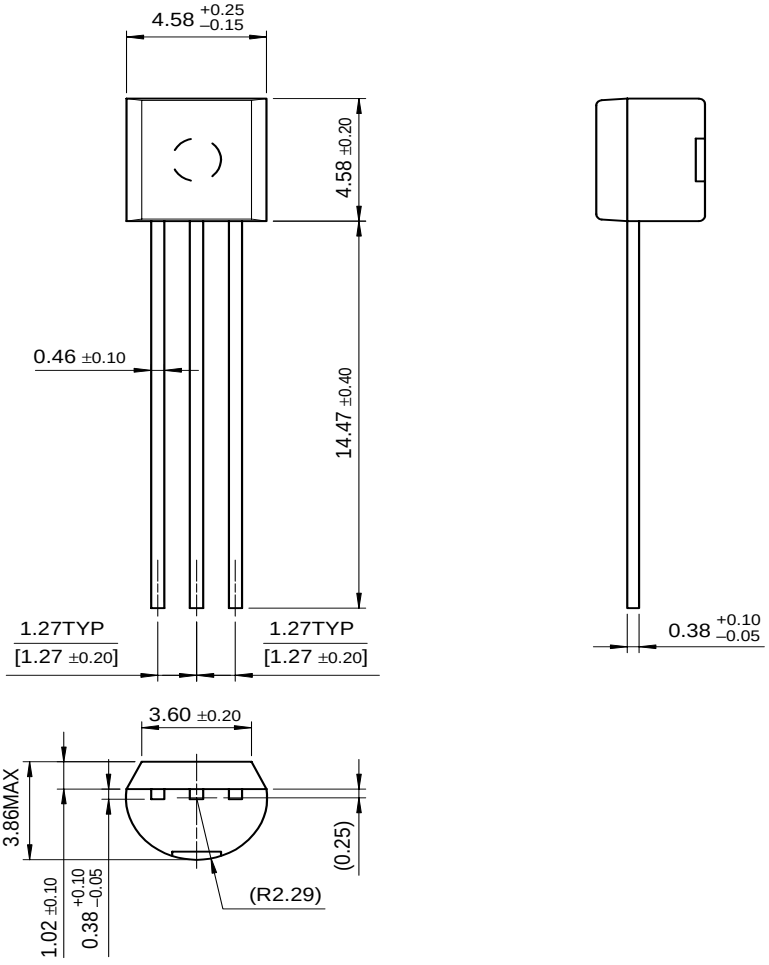


Figure 5. Current Gain Bandwidth Product

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Package Demensions

TO-92



Dimensions in Millimeters

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DOME™	HiSeC™	Power247™	SuperSOT™-3	
EcoSPARK™	I^2C™	PowerTrench®	SuperSOT™-6	
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EnSigna™	LittleFET™	QS™	SyncFET™	
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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.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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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SS9018

NPN Epitaxial Silicon Transistor

Contents

Features | Applications | Product status/pricing/packaging

Datasheet

Download this datasheet

PDF

e-mail this datasheet

[E-

This page

Print version

Related Links

Request samples

Dotted line

How to order products

Dotted line

Product Change Notices (PCNs)

Dotted line

Support

Dotted line

Distributor and field sales representatives

Dotted line

Quality and reliability

Dotted line

Design tools

Features

- High Current Gain Bandwidth Product f_T=1.1GHz (Typ)

back to top

Applications

AM/FM Amplifier, Local Oscillator of FM/VHF Tuner

back to top

Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
SS9018FBU	Full Production	$0.05	TO-92	3	BULK
SS9018HBU	Full Production	$0.05	TO-92	3	BULK
SS9018GBU	Full Production	$0.05	TO-92	3	BULK

* 1,000 piece Budgetary Pricing

back to top

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