



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

EC4H08C — NPN Epitaxial Planar Silicon Transistor UHF to X Band Low-Noise Amplifier and OSC Applications

Features

- High cut-off frequency : $f_T=24\text{GHz}$ typ ($V_{CE}=3\text{V}$).
- Low operating voltage.
- High gain : $|S_{21e}|^2=17\text{dB}$ typ ($f=2\text{GHz}$).
- Halogen free compliance (UL94 HB).

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to- Base Voltage	V_{CBO}		10	V
Collector-to-Emitter Voltage	V_{CEO}		3.5	V
Emitter-to-Base Voltage	V_{EBO}		2.5	V
Collector Current	I_C		15	mA
Collector Dissipation	P_C		50	mW
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=5\text{V}, I_E=0\text{A}$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=1\text{V}, I_C=0\text{A}$			1	μA
DC Current Gain	h_{FE}	$V_{CE}=1\text{V}, I_C=5\text{mA}$	70		150	
Gain-Bandwidth Product	f_T	$V_{CE}=3\text{V}, I_C=10\text{mA}$	18	24		GHz
Reverse Transfer Capacitance	C_{re}	$V_{CB}=1\text{V}, f=1\text{MHz}$		0.06		pF
Forward Transfer Gain	$ S_{21e} ^2$	$V_{CE}=3\text{V}, I_C=10\text{mA}, f=2\text{GHz}$	13	17		dB
Noise Figure	NF	$V_{CE}=1\text{V}, I_C=2\text{mA}, f=2\text{GHz}$		1.5	2.0	dB

Marking : L

Notre) Pay attention to handling since it is liable to be affected by static electricity due to the high-frequency process adopted.

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SANYO Semiconductor Co., Ltd.

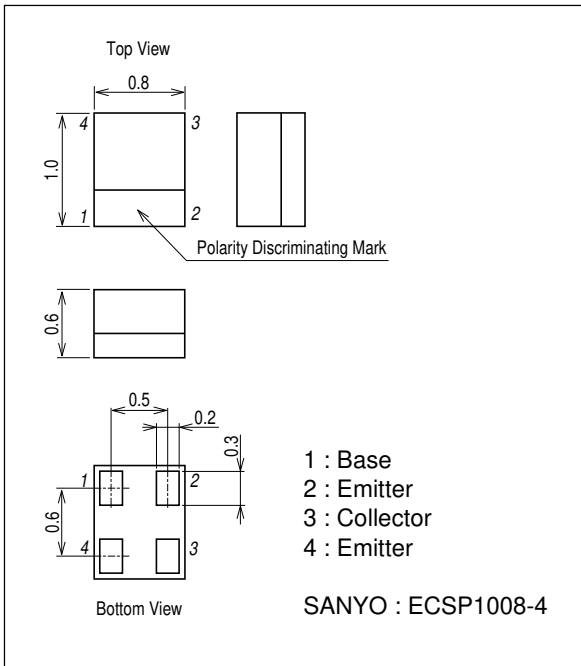
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EC4H08C

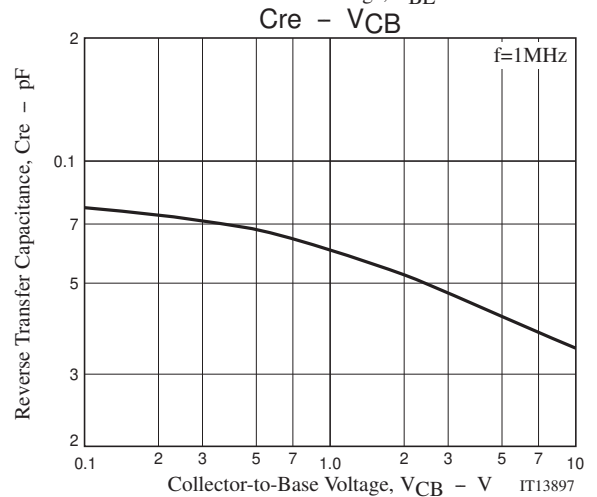
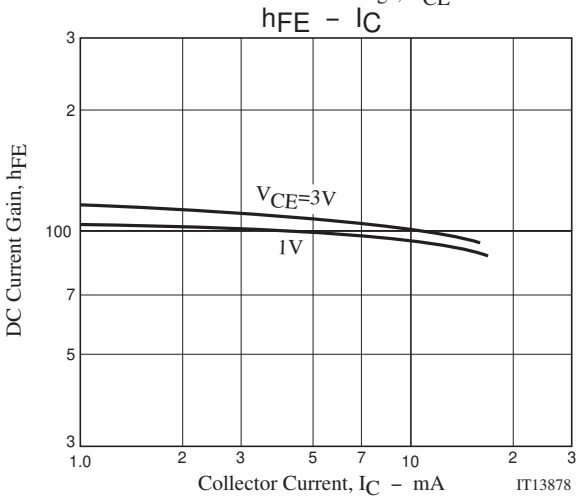
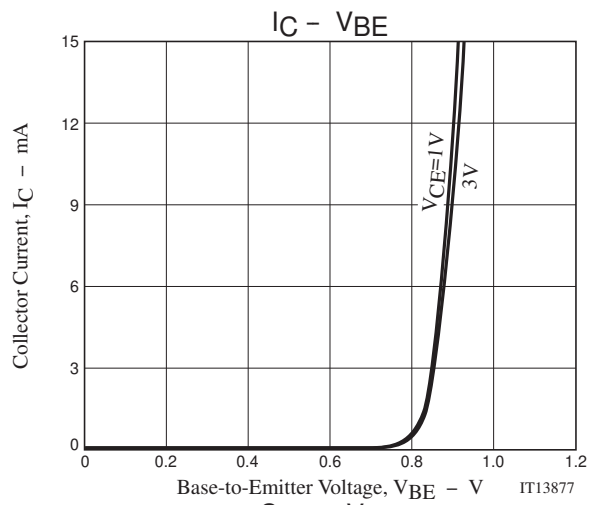
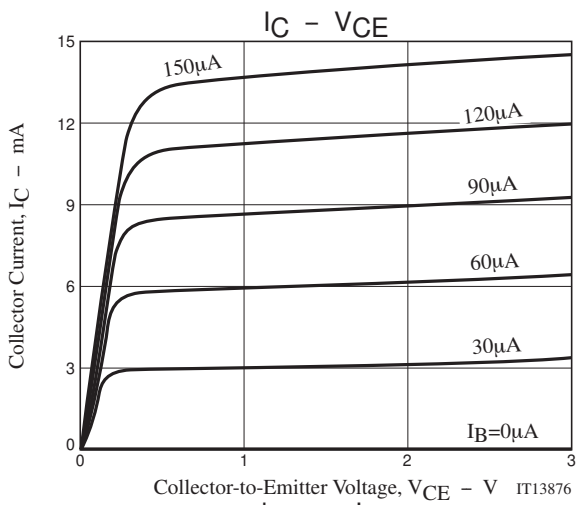
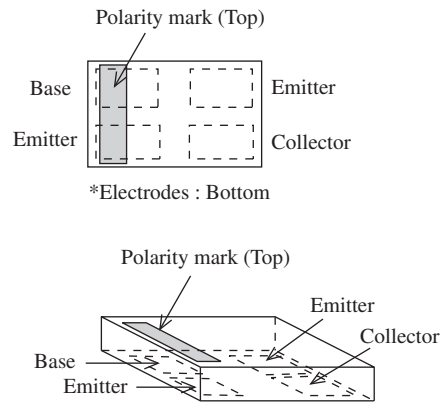
Package Dimensions

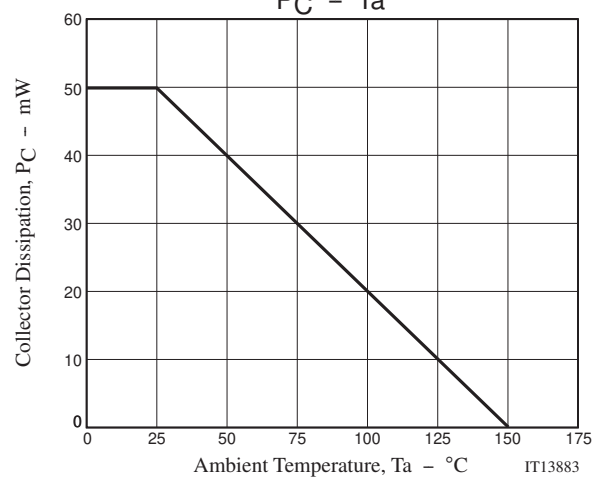
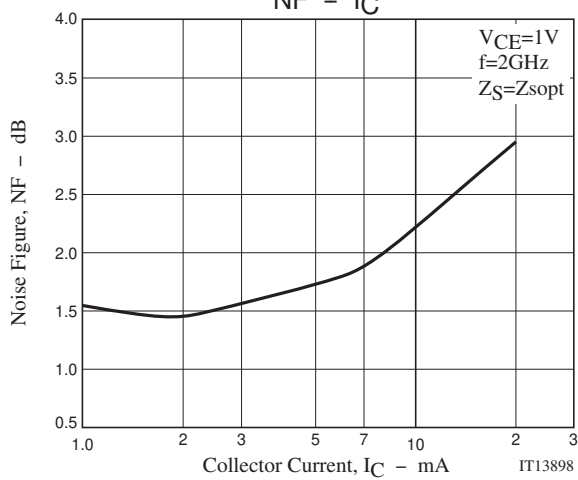
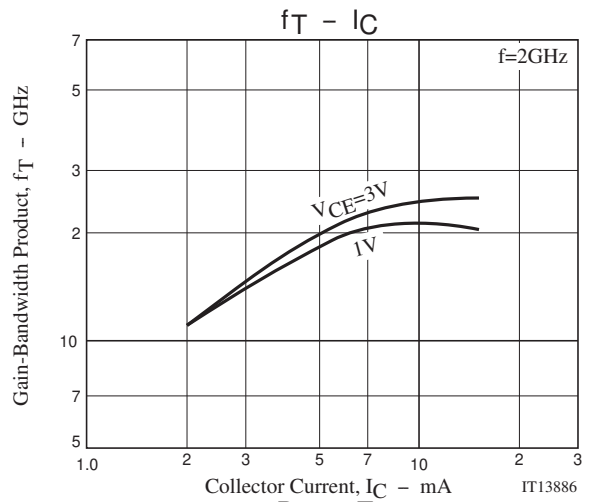
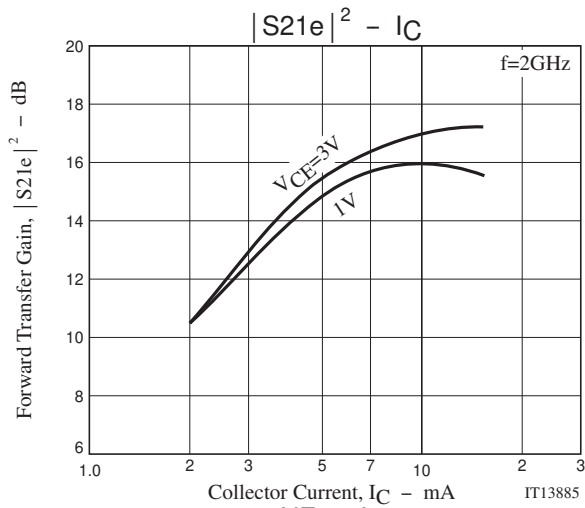
unit : mm (typ)

7036-002



Electrical Connection (Top view)





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