



SANYO Semiconductors

DATA SHEET

EC3101C / EC3201C — PNP / NPN Epitaxial Planar Silicon Transistors

Low-Frequency General-Purpose Amplifier Applications

Features

- Ultraminiature package facilitates miniaturization in end products.

Specifications

() : EC3101C

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)55	V
Collector-to-Emitter Voltage	V_{CEO}		(-)50	V
Emitter-to-Base Voltage	V_{EBO}		(-)6	V
Collector Current	I_C		(-)150	mA
Collector Current (Pulse)	I_{CP}		(-)300	mA
Base Current	I_B		(-)30	mA
Collector Dissipation	P_C		150	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}	$V_{CB}=(-)35\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$	200		600	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)6\text{V}, I_C=(-)10\text{mA}$		(180)200		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)6\text{V}, f=1\text{MHz}$		(2.9)1.7		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50\text{mA}, I_B=(-)5\text{mA}$		(-0.12)0.08	(-)0.4	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)50\text{mA}, I_B=(-)5\text{mA}$		(-)0.8	(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)55			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-)6			V

Marking EC3101C : G

EC3201C : H

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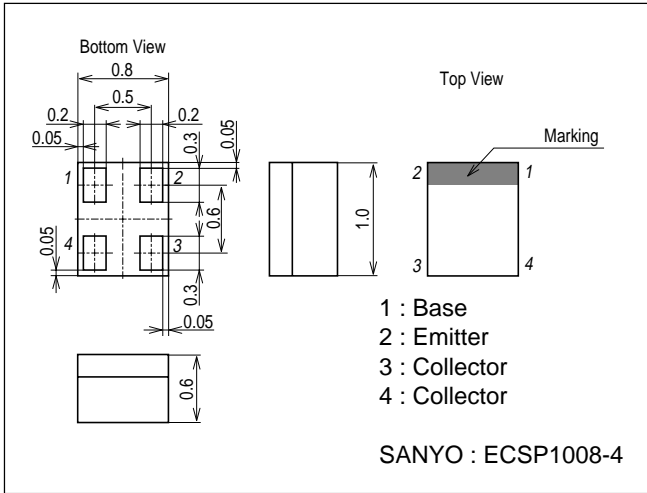
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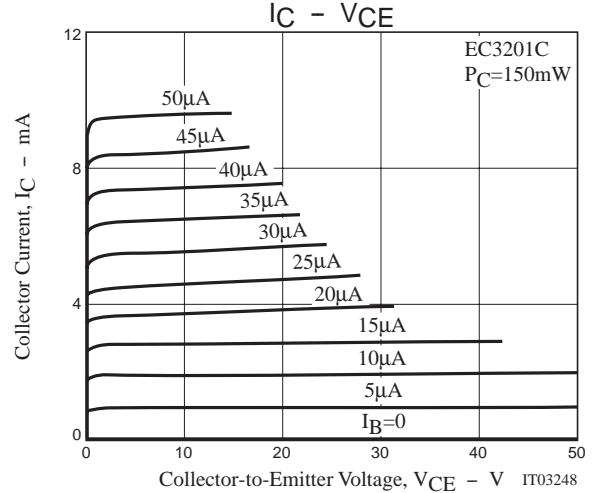
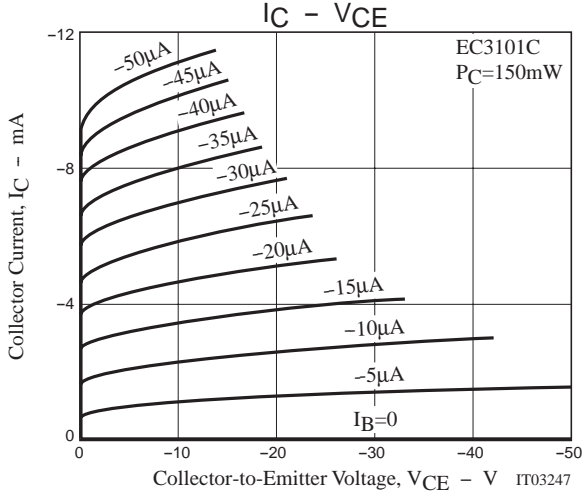
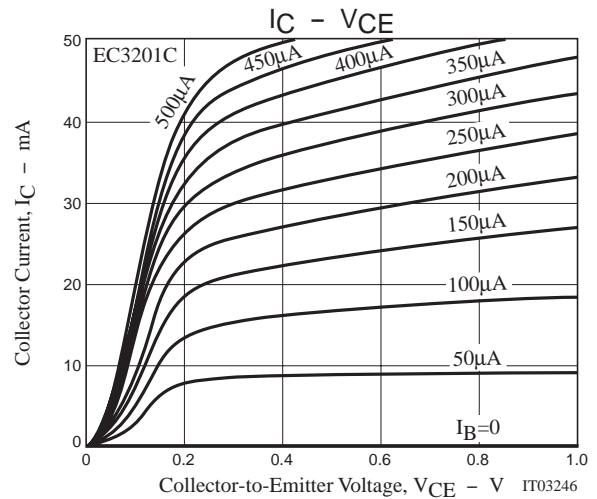
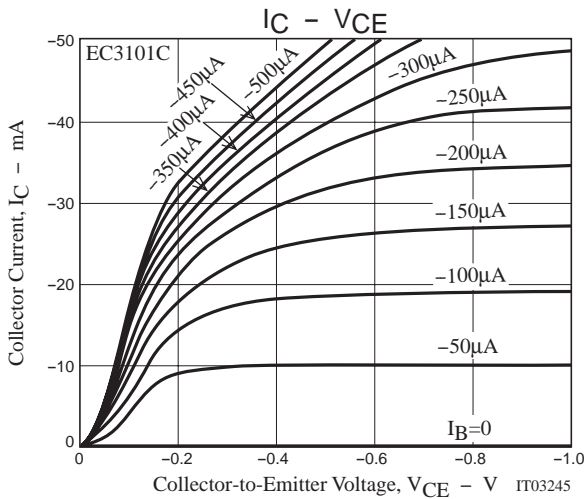
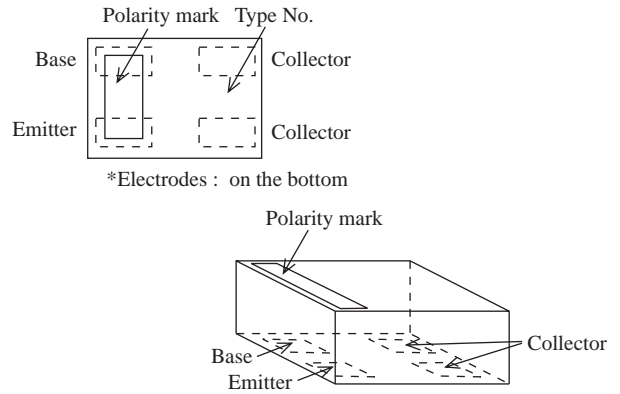
EC3101C / EC3201C

Package Dimensions

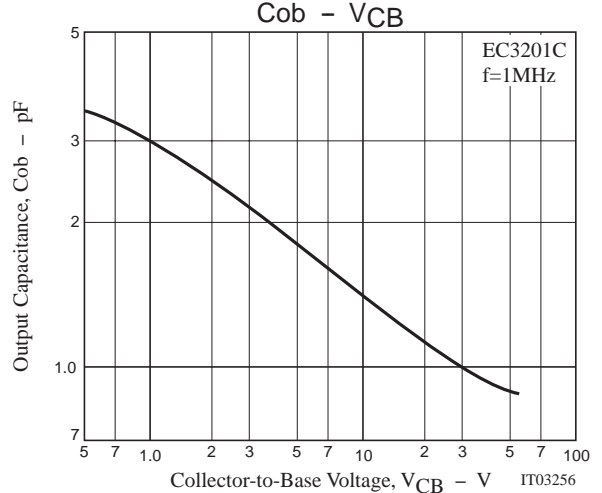
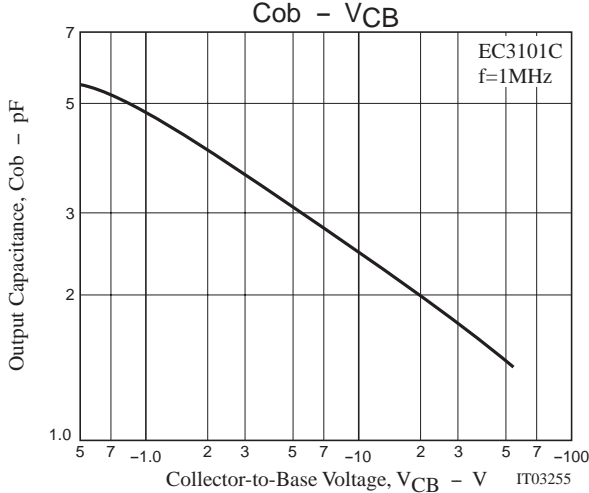
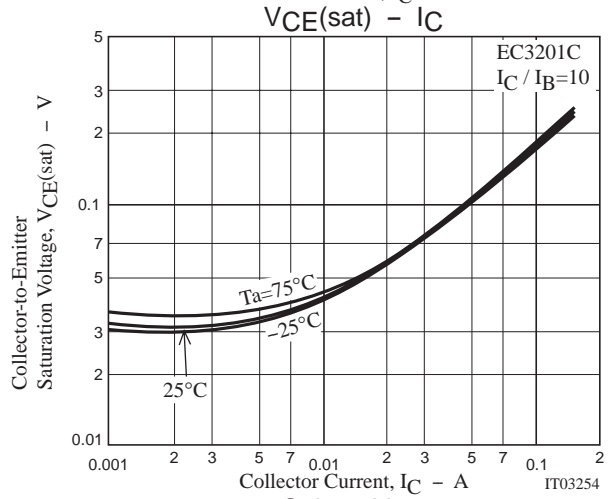
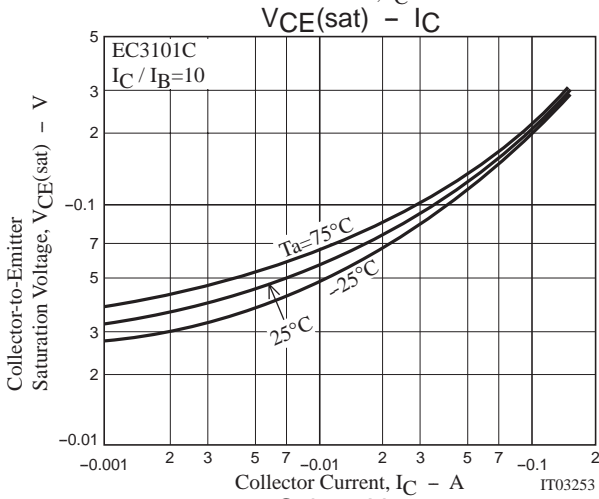
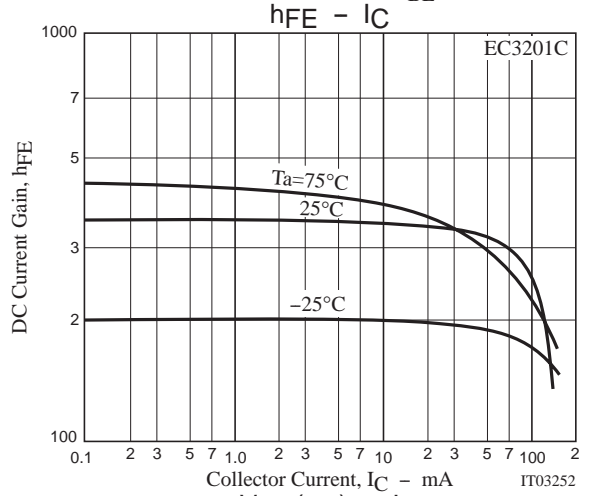
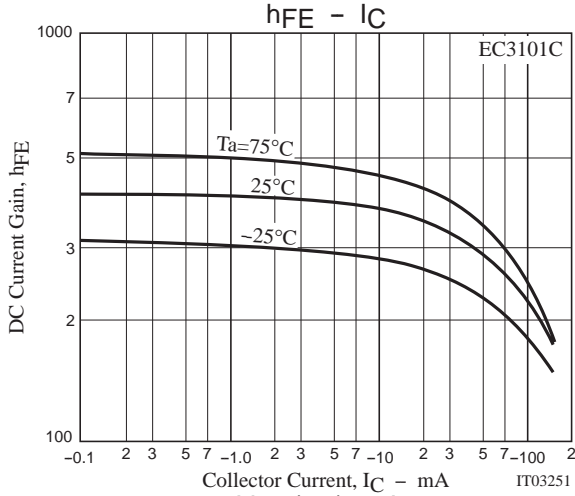
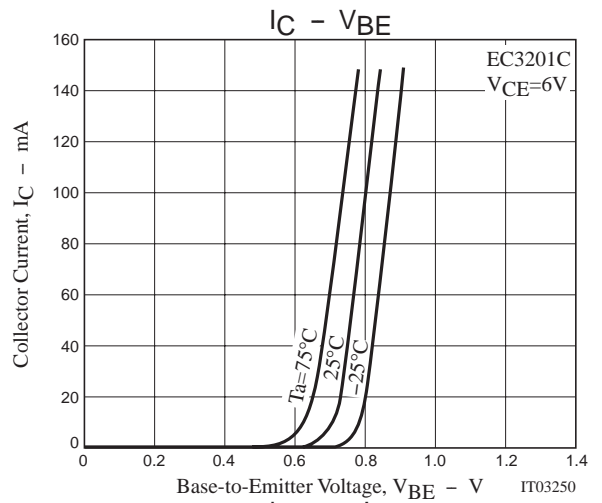
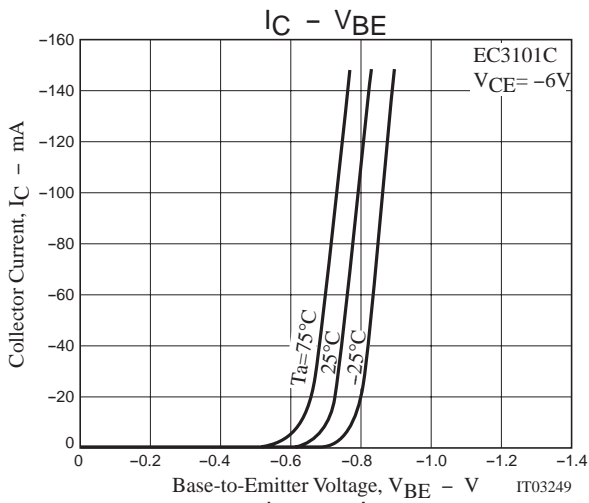
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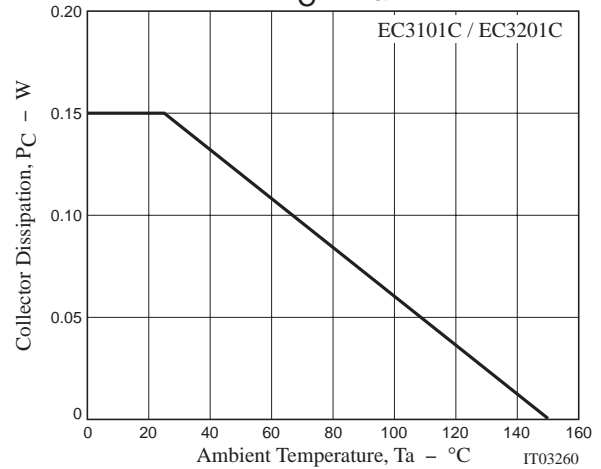
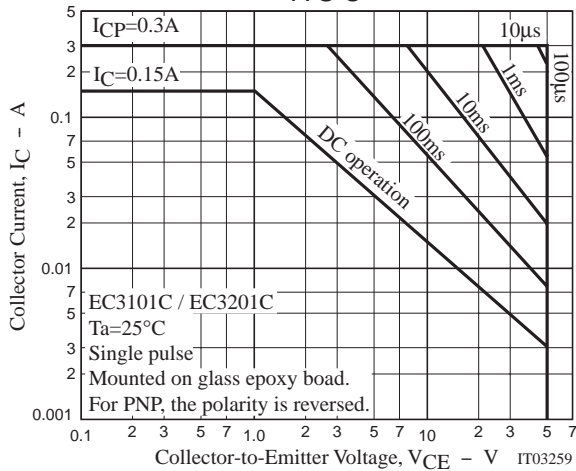
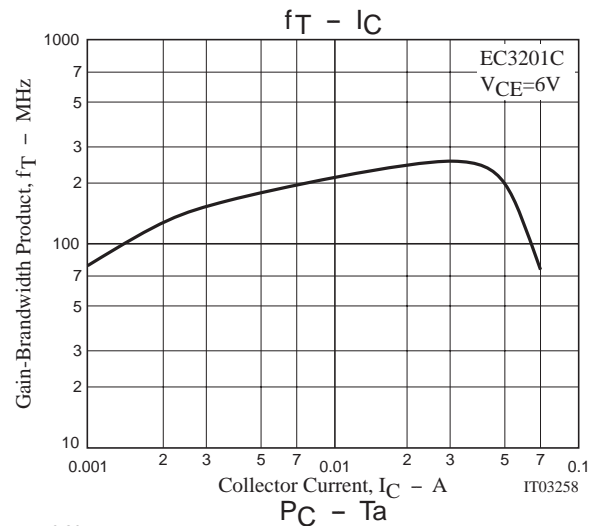
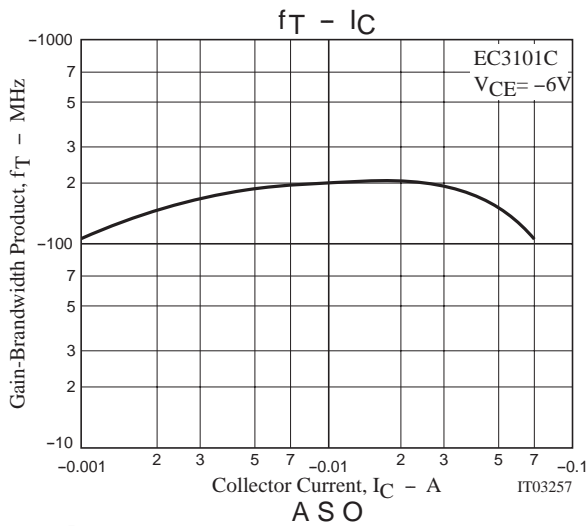
Electrical Connection (Top view)



EC3101C / EC3201C



EC3101C / EC3201C



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