



SANYO Semiconductors

DATA SHEET

2SC5551A

NPN Epitaxial Planar Silicon Transistor

High-Frequency Medium-Output Amplifier Applications

Features

- High f_T : ($f_T=3.5\text{GHz typ}$).
- Large current : ($I_C=300\text{mA}$).
- Large allowable collector dissipation (1.3W max).

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		40	V
Collector-to-Emitter Voltage	V_{CEO}		30	V
Emitter-to-Base Voltage	V_{EBO}		2	V
Collector Current	I_C		300	mA
Collector Current (Pulse)	I_{CP}		600	mA
Collector Dissipation	P_C	When mounted on ceramic substrate (250mm ² ×0.8mm)	1.3	W
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=20\text{V}, I_E=0\text{A}$			1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=1\text{V}, I_C=0\text{A}$			5.0	μA

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=50mA$	90		270	
	h_{FE2}	$V_{CE}=5V, I_C=300mA$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=5V, I_C=50mA$		3.5		GHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		2.9	4.0	pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=10V, f=1MHz$		1.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$		0.07	0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$		0.8	1.2	V

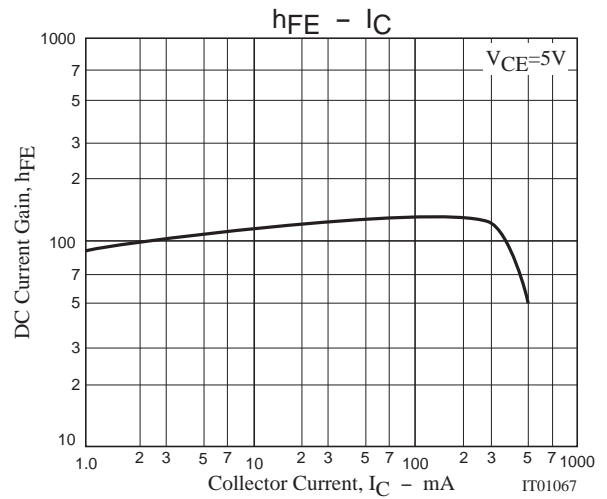
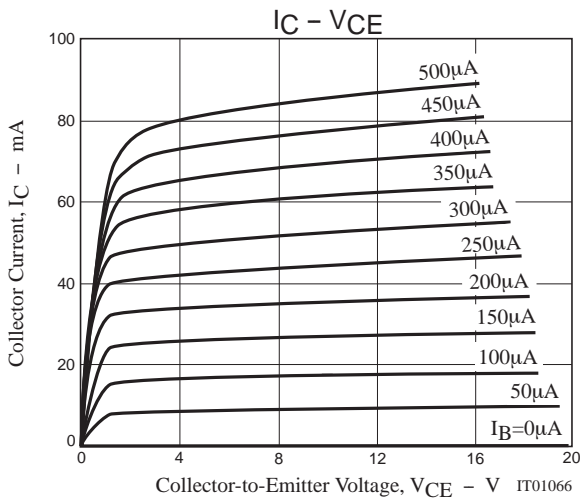
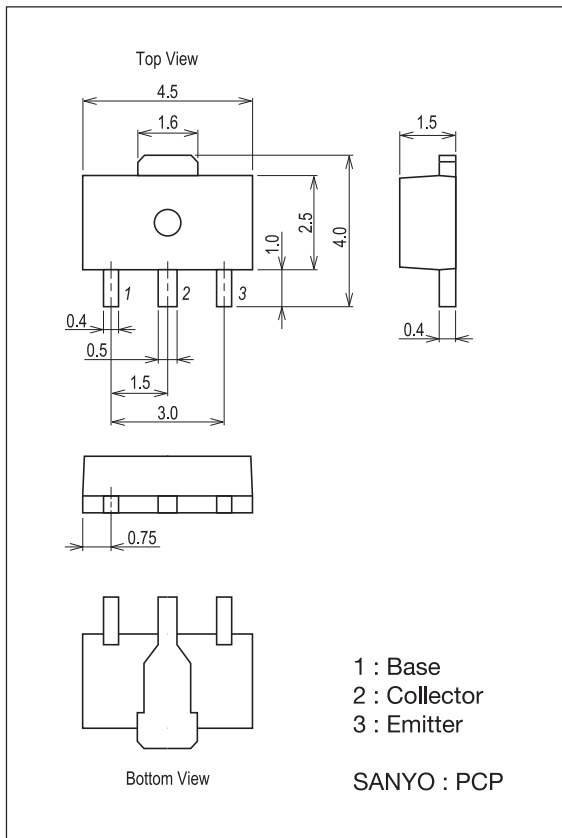
* : The 2SC551A is classified by 50mA h_{FE} as follows :

Marking	EB E	EB F
Rank	E	F
h_{FE}	90 to 180	135 to 270

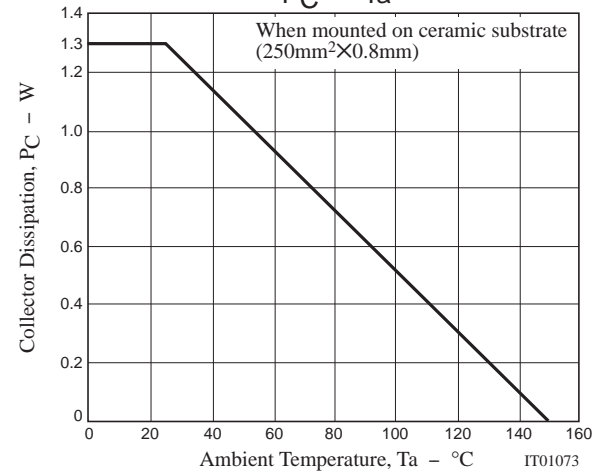
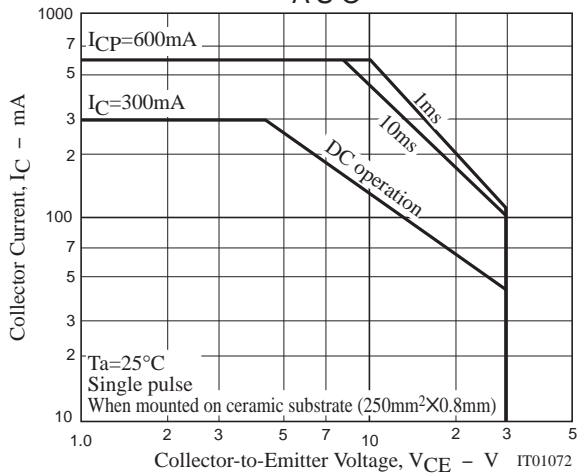
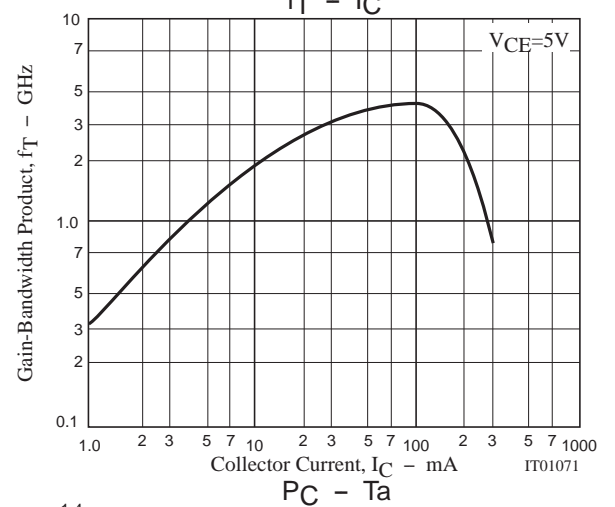
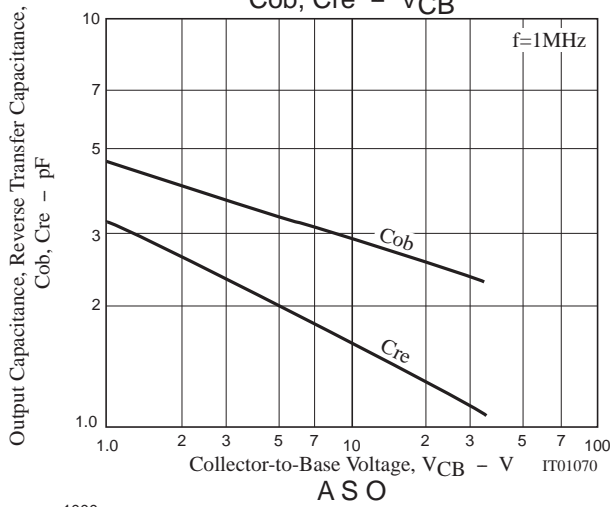
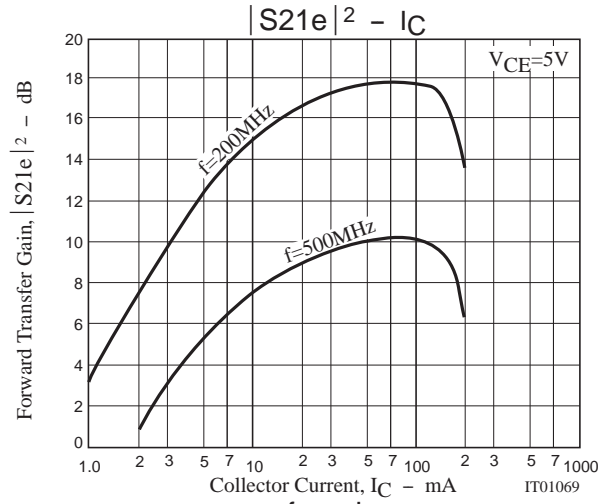
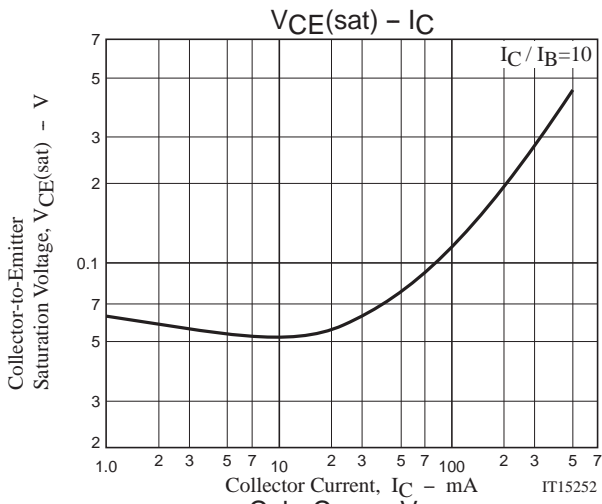
Package Dimensions

unit : mm (typ)

7007B-004



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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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