



2SA608N/2SC536N

Low-Frequency General-Purpose Amplifier Applications

Applications

- Capable of being used in the low frequency to high frequency range.

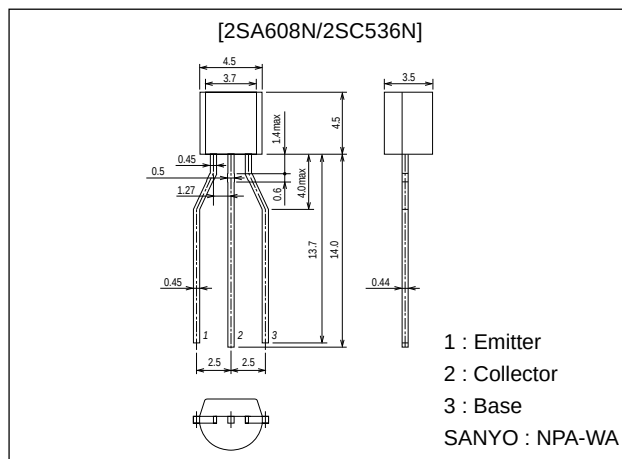
Features

- Large current capacity and wide ASO.

Package Dimensions

unit:mm

2164



() : 2SA608N

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-50)60	V
Collector-to-Emitter Voltage	V_{CE0}		(-50)50	V
Emitter-to-Base Voltage	V_{EB0}		(-6)6	V
Collector Current	I_C		(-150)150	mA
Collector Current (Pulse)	I_{CP}		(-400)400	mA
Collector Dissipation	P_C		500	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_{CB0}	$V_{CB}=(-)40\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=(-)5\text{V}, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$	160*		560*	
	h_{FE2}	$V_{CE}=(-)6\text{V}, I_C=(-)0.1\text{mA}$	70			

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* The 2SA608N/2SC536N are classified by 1mA h_{FE} as follow

Rank	F	G
h_{FE}	160 to 320	280 to 560

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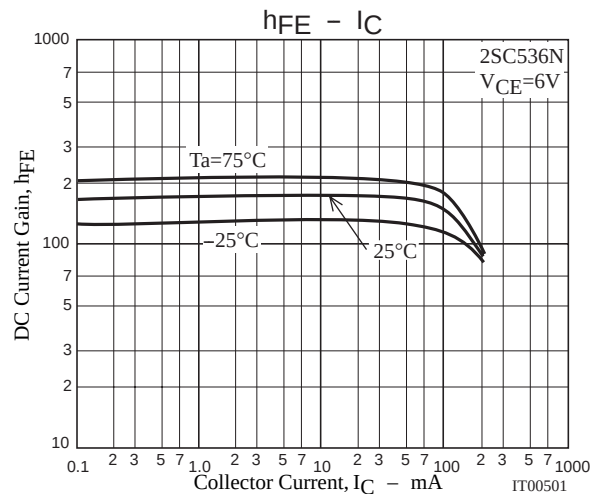
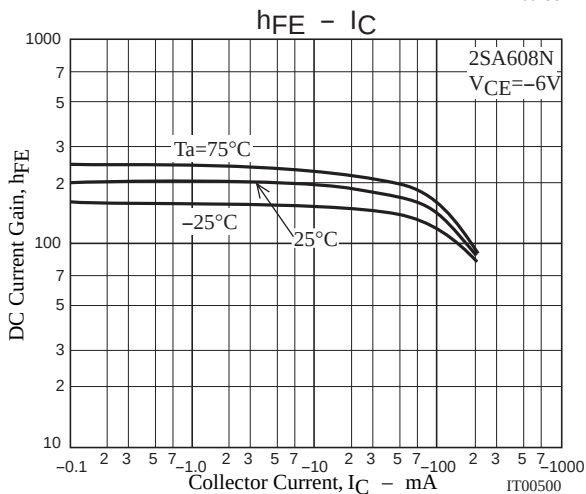
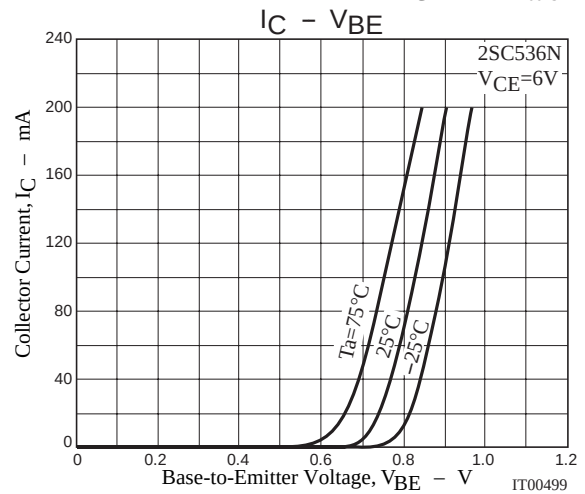
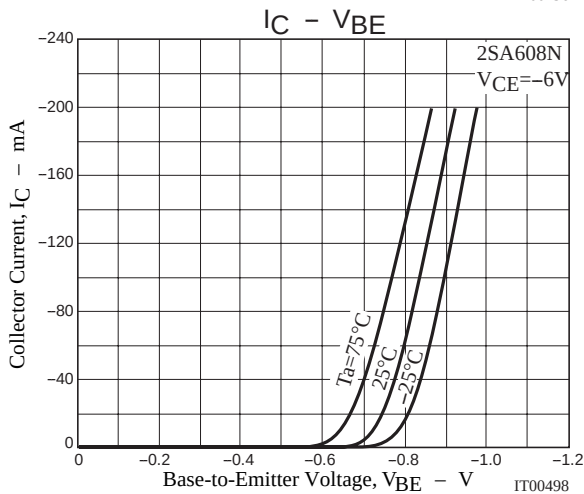
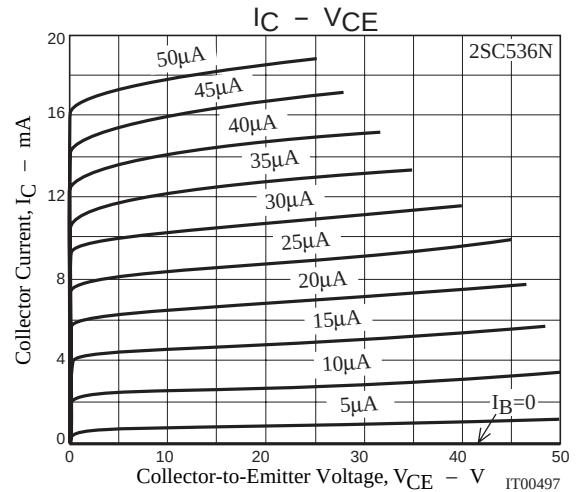
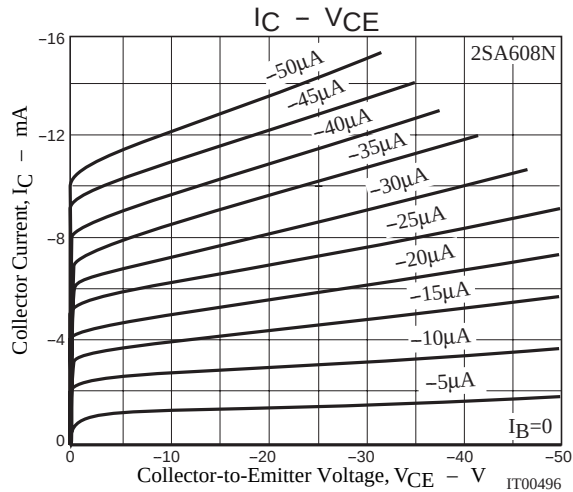
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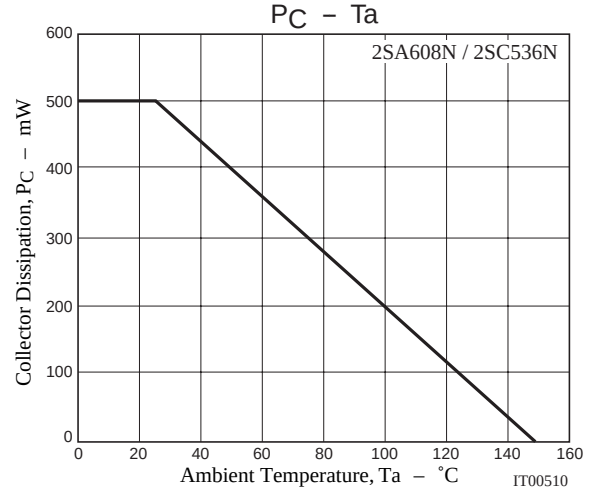
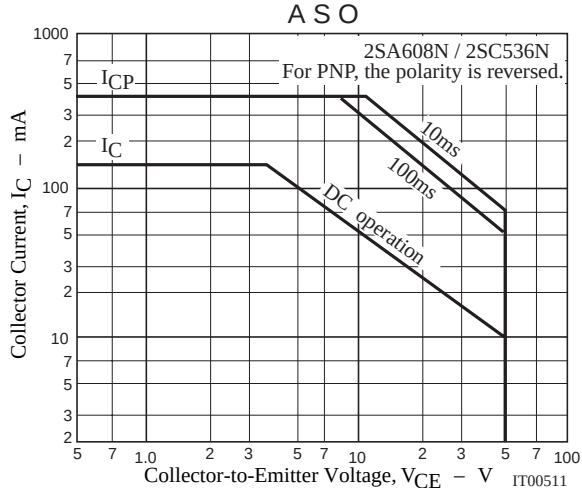
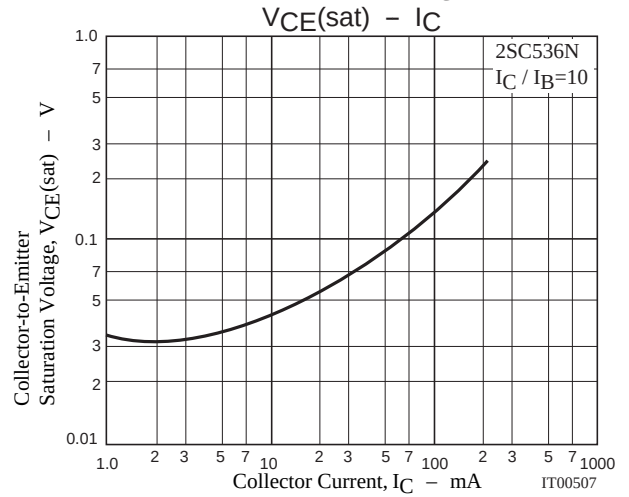
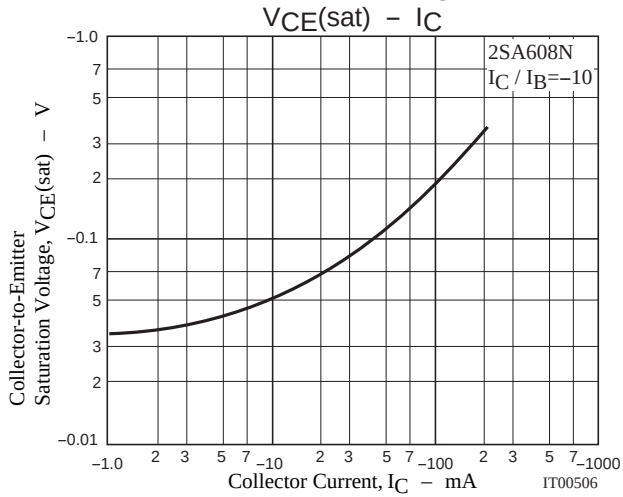
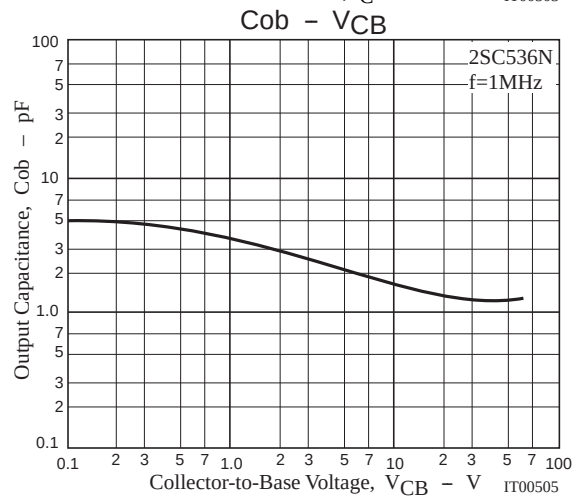
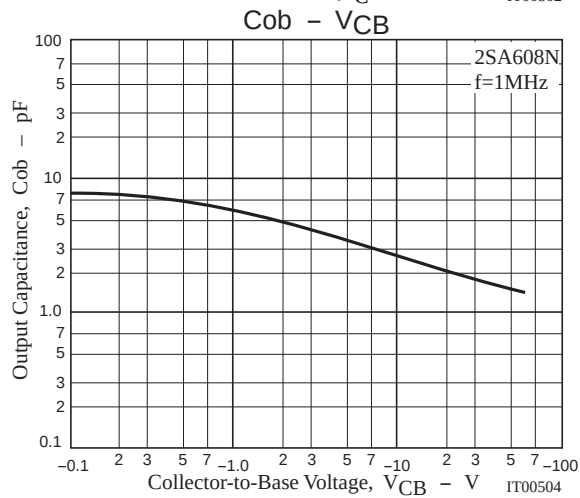
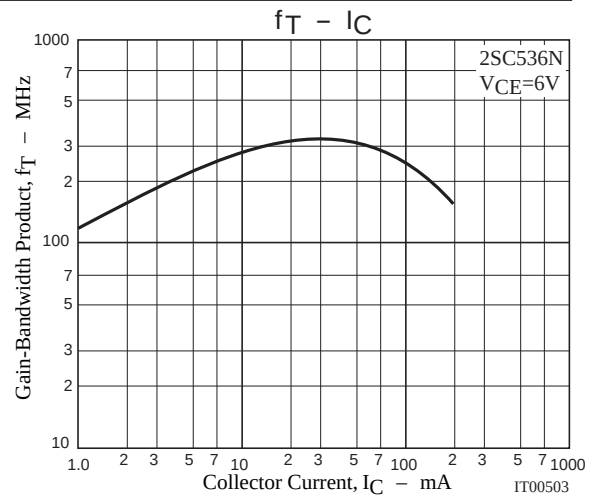
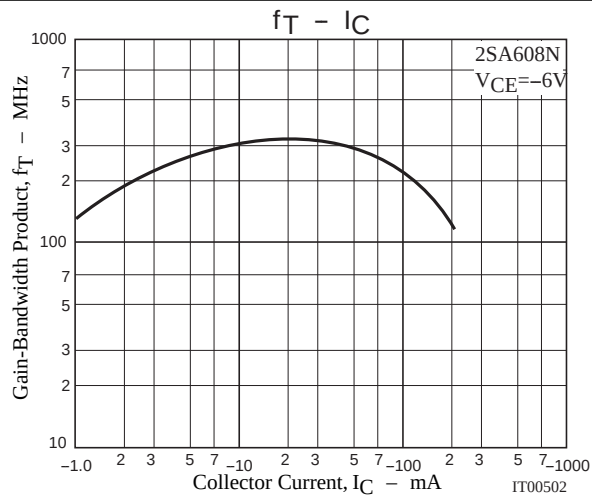
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)6V, I_C=(-)10mA$		200		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)6V, f=1MHz$		3.0		pF
				(4.5)		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$			(-)0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$			(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)6			V



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