



## 2SA608N/2SC536N

### Low-Frequency General-Purpose Amplifier Applications

#### Applications

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

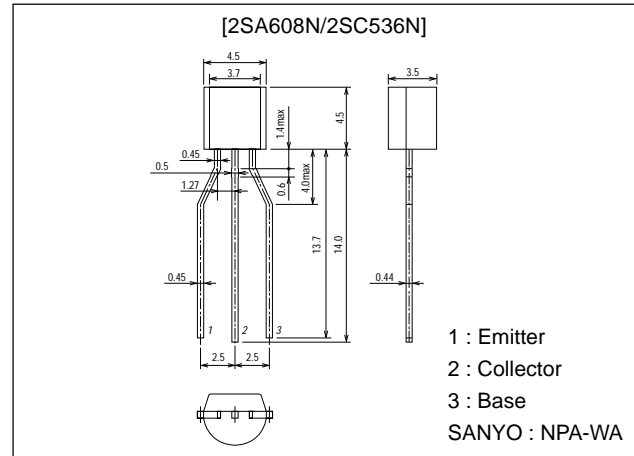
#### Features

- Large current capacity and wide ASO.

#### Package Dimensions

unit:mm

2164



( ) : 2SA608N

#### Specifications

##### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		(-50)60	V
Collector-to-Emitter Voltage	$V_{CE0}$		(-50)	V
Emitter-to-Base Voltage	$V_{EB0}$		(-6)	V
Collector Current	$I_C$		(-150)	mA
Collector Current (Pulse)	$I_{CP}$		(-400)	mA
Collector Dissipation	$P_C$		500	mW
Junction Temperature	$T_J$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

##### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CB0}$	$V_{CB}=(-)40V, I_E=0$			(-0.1)	$\mu A$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB}=(-)5V, I_C=0$			(-0.1)	$\mu A$
DC Current Gain	$h_{FE1}$	$V_{CE}=(-)6V, I_C=(-)1mA$	160*		560*	
	$h_{FE2}$	$V_{CE}=(-)6V, I_C=(-)0.1mA$	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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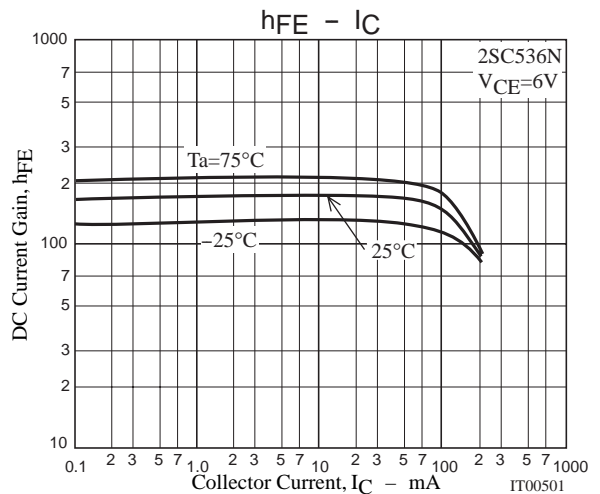
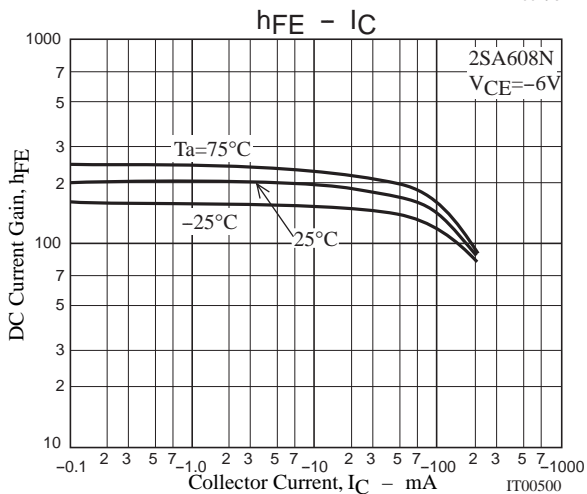
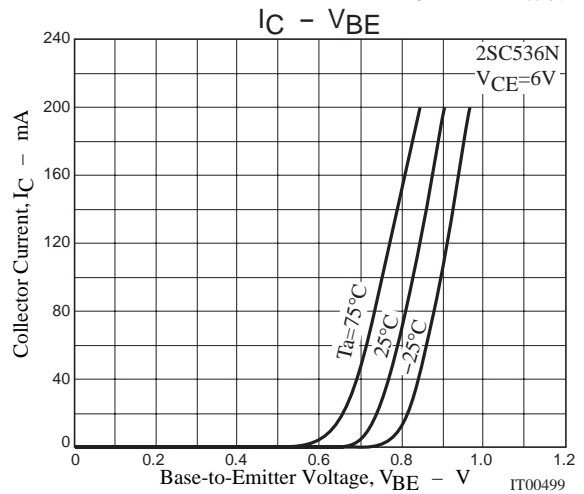
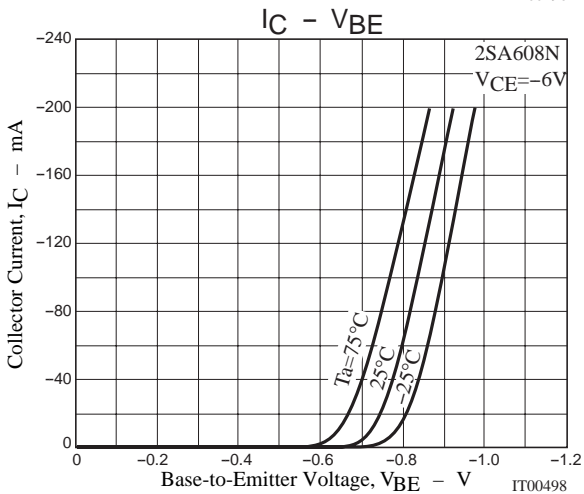
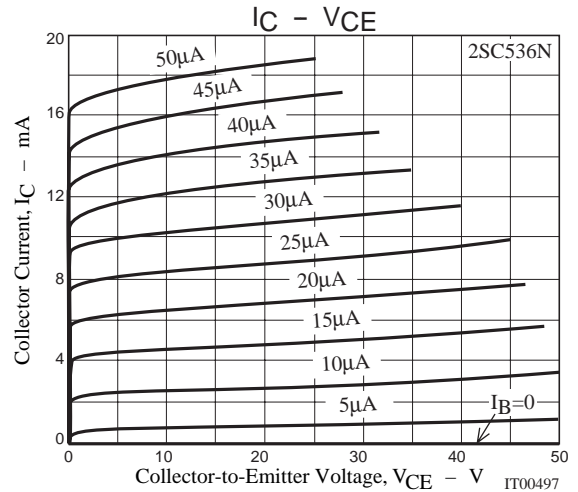
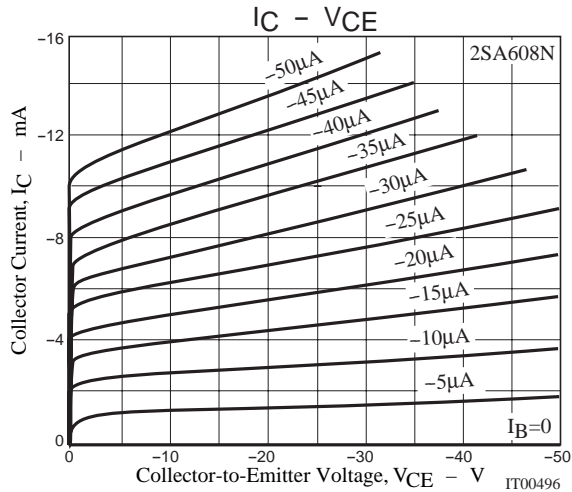
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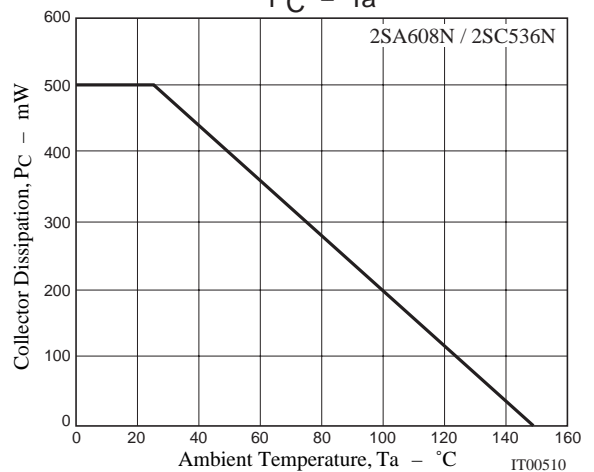
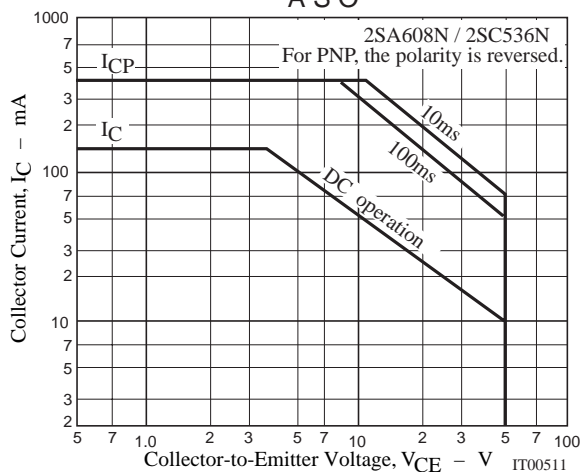
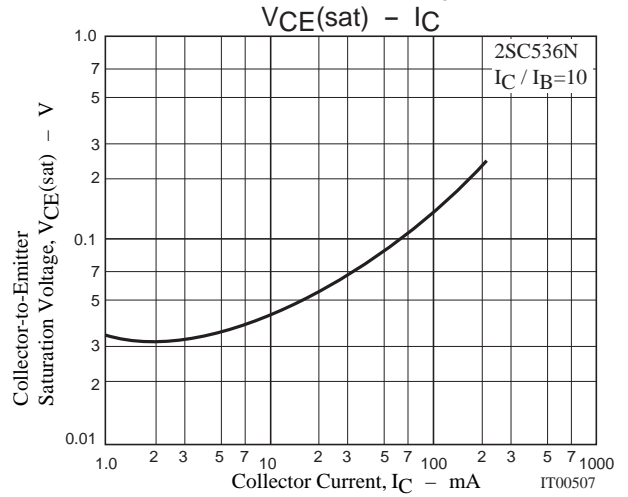
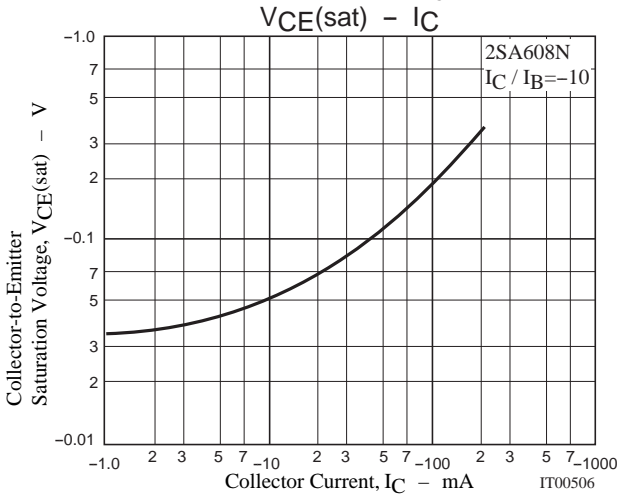
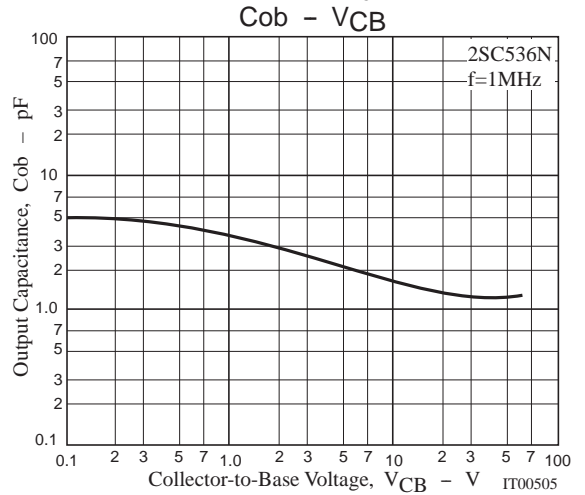
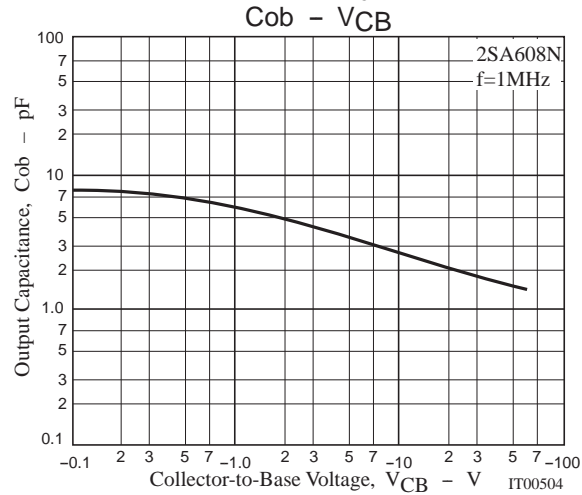
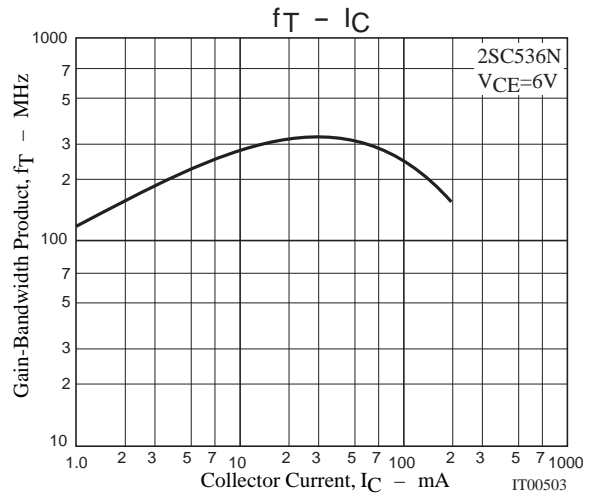
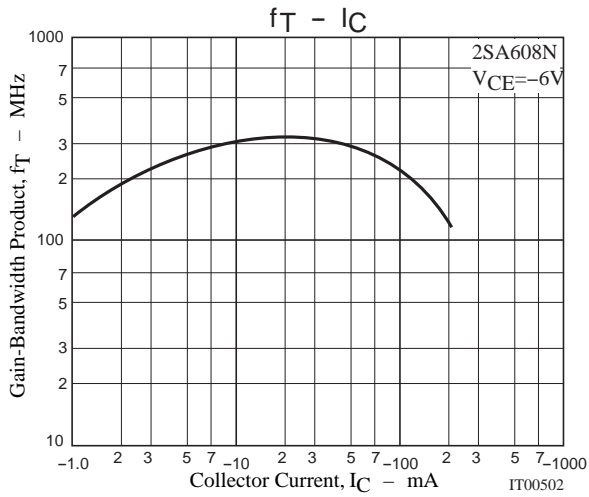
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)6V, I_C=(-)10mA$		200		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=(-)6V, f=1MHz$		3.0		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$		(4.5)		pF
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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