



# 2SA608N/2SC536N

## Bipolar Transistor

(-50V, (-)150mA, Low  $V_{CE(sat)}$  (PNP)NPN Single NPA-WA

ON Semiconductor®

<http://onsemi.com>

### Applications

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

### Features

- Large current capacity and wide ASO

### Specifications ( ) : 2SA608N

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

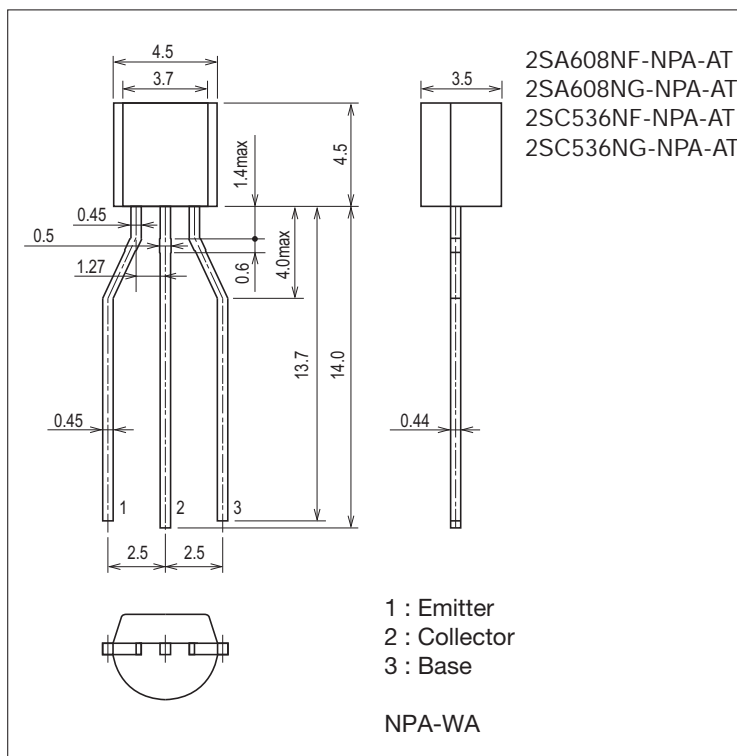
Parameter	Symbol	Conditions	Ratings	Unit
Collector to Base Voltage	$V_{CB0}$		(-50)60	V
Collector to Emitter Voltage	$V_{CE0}$		(-50)	V
Emitter to Base Voltage	$V_{EB0}$		(-6)	V
Collector Current	$I_C$		(-)150	mA
Collector Current (Pulse)	$I_{CP}$		(-)400	mA
Collector Dissipation	$P_C$		500	mW
Junction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

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

### Package Dimensions

unit : mm (typ)

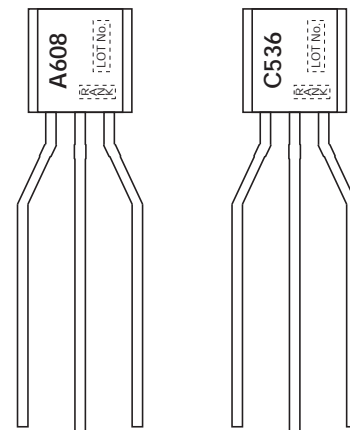
7542-001



### Ordering & Package Information

Device	Package	Shipping	memo
2SA608NF-NPA-AT	NPA SC-43A, TO-92, TO-226AA, SOT-54	1,500 pcs./box	Pb-Free
2SA608NG-NPA-AT	NPA SC-43A, TO-92, TO-226AA, SOT-54	1,500 pcs./box	
2SC536NF-NPA-AT	NPA SC-43A, TO-92, TO-226AA, SOT-54	1,500 pcs./box	
2SC536NG-NPA-AT	NPA SC-43A, TO-92, TO-226AA, SOT-54	1,500 pcs./box	

### Marking



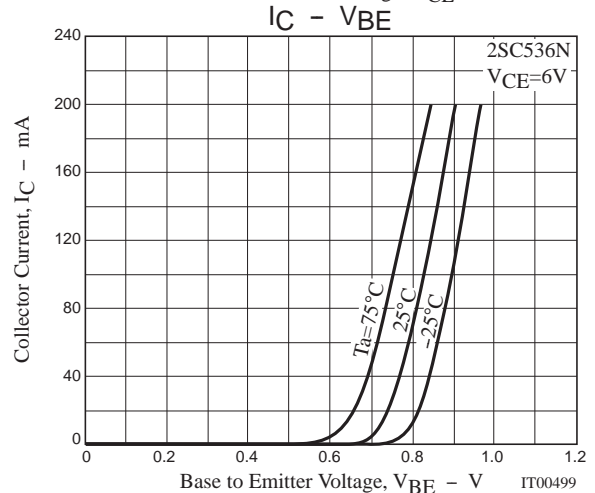
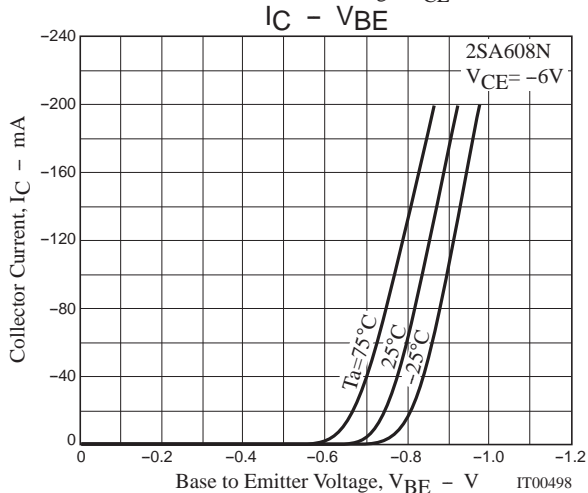
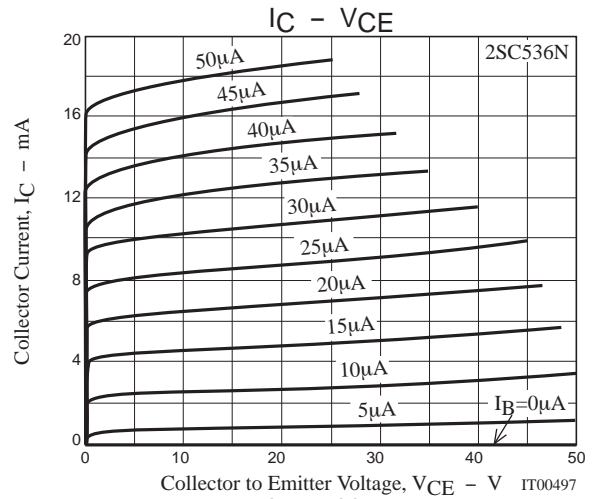
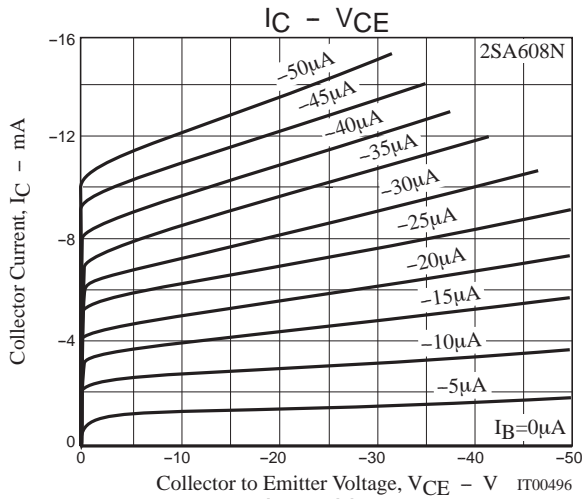
# 2SA608N/2SC536N

## Electrical Characteristics at Ta=25°C

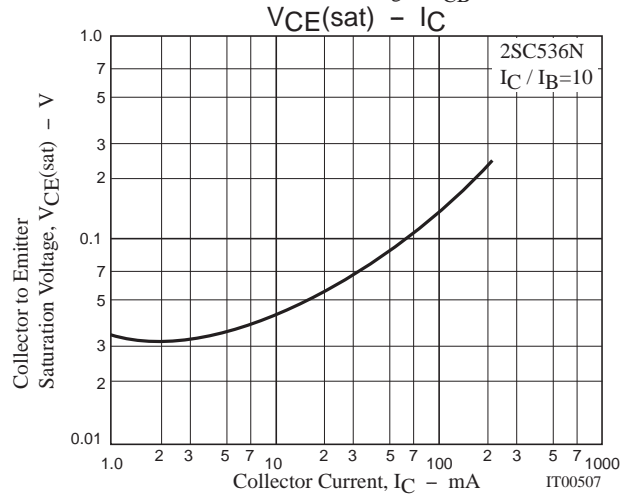
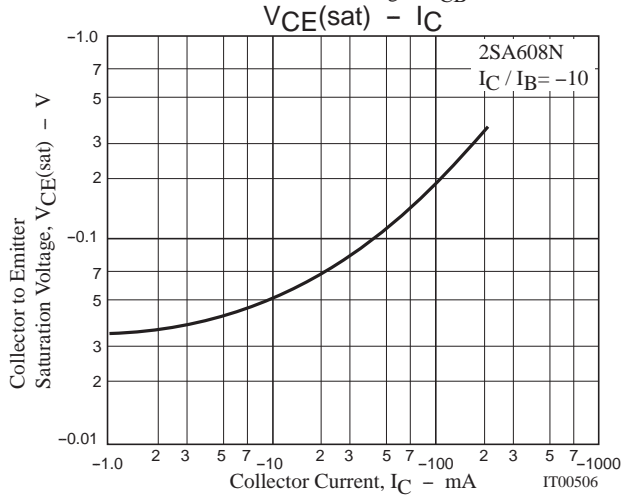
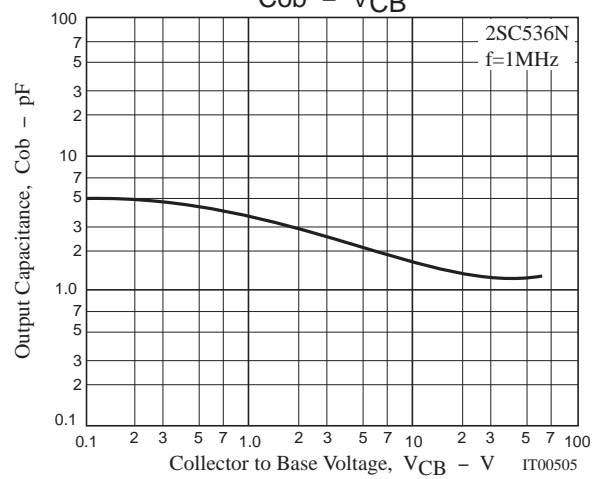
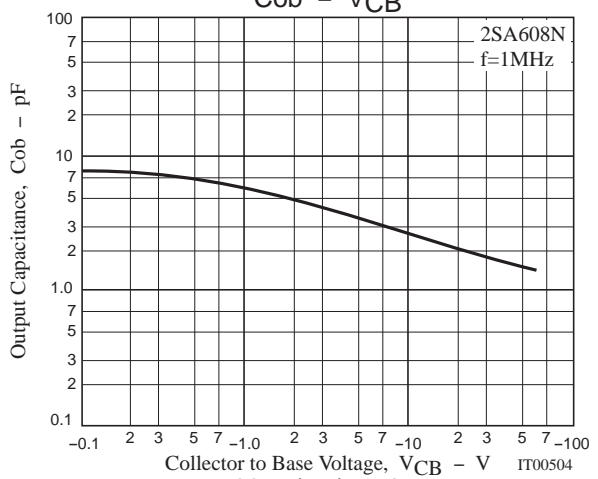
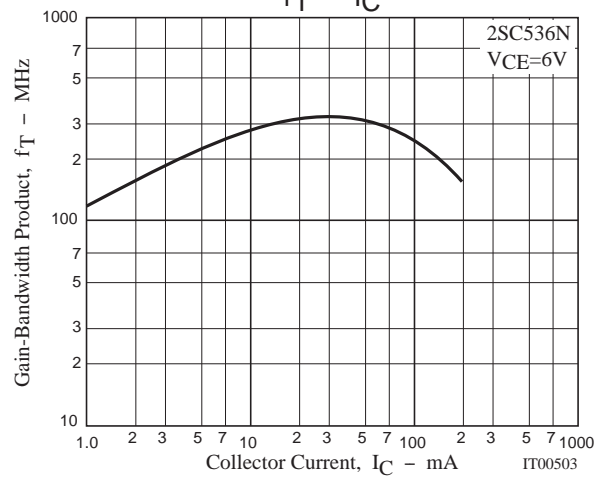
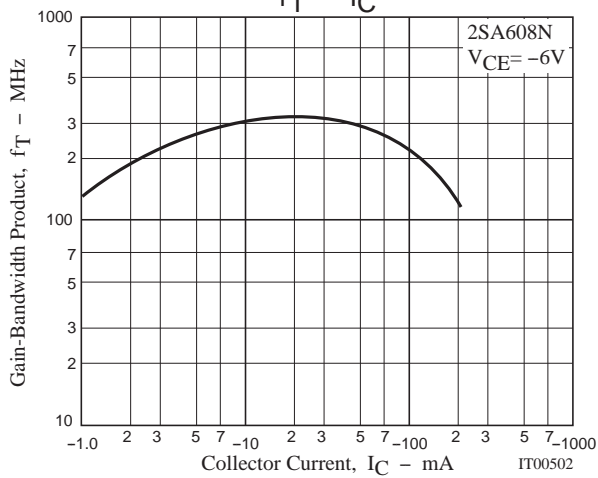
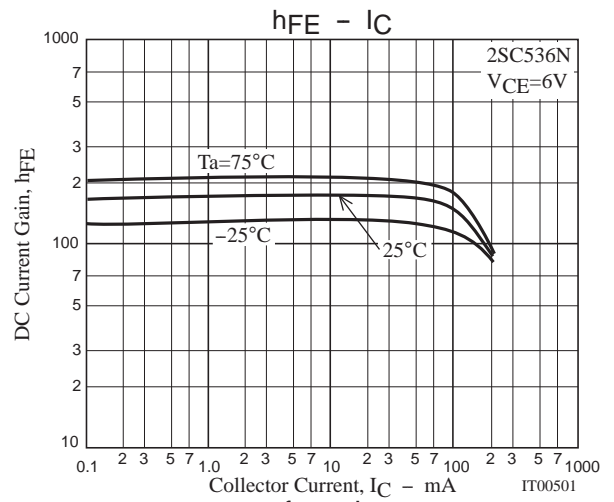
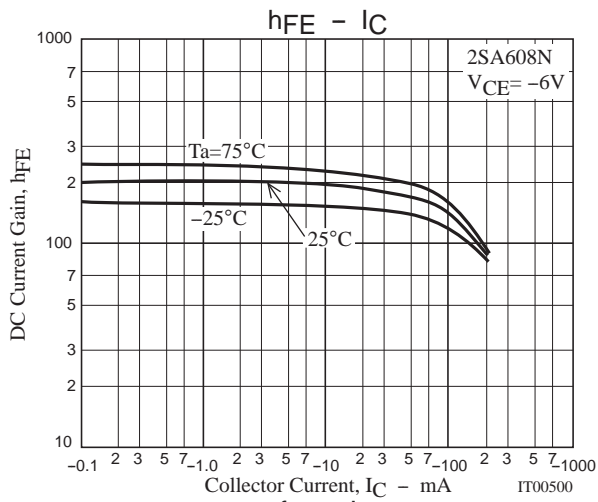
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)40V, I_E = 0A$			(-)0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)5V, I_C = 0A$			(-)0.1	$\mu A$
DC Current Gain	$h_{FE1}$	$V_{CE} = (-)6V, I_C = (-)1mA$	160*		560*	
	$h_{FE2}$	$V_{CE} = (-)6V, I_C = (-)0.1mA$	70			
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)6V, I_C = (-)10mA$		200		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = (-)6V, f = 1MHz$		(4.5)3.0		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	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0A$	(-)60			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0A$	(-)6			V

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

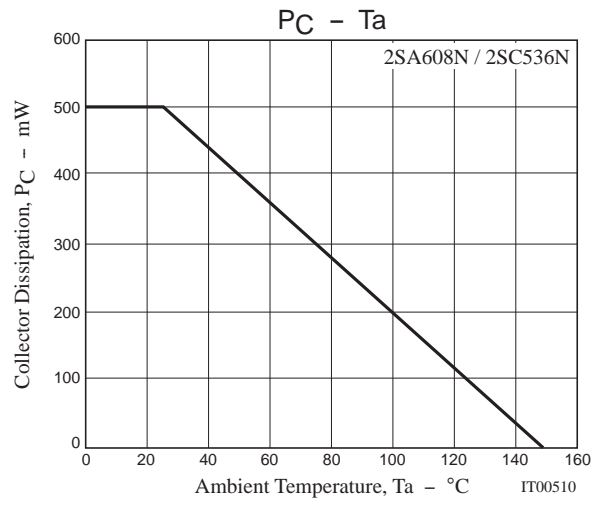
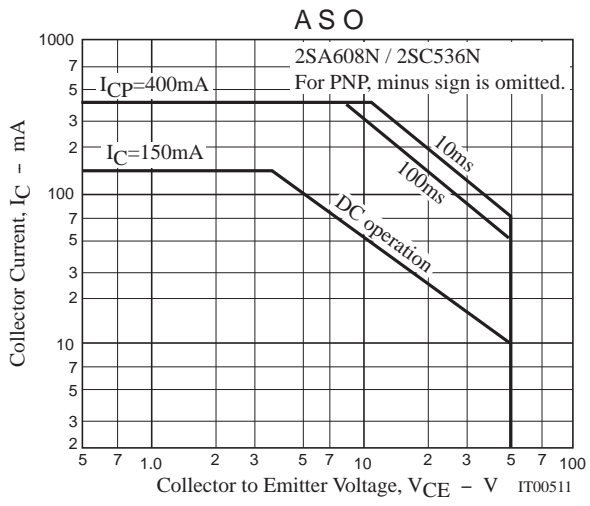
Rank	F	G
$h_{FE}$	160 to 320	280 to 560



# 2SA608N/2SC536N



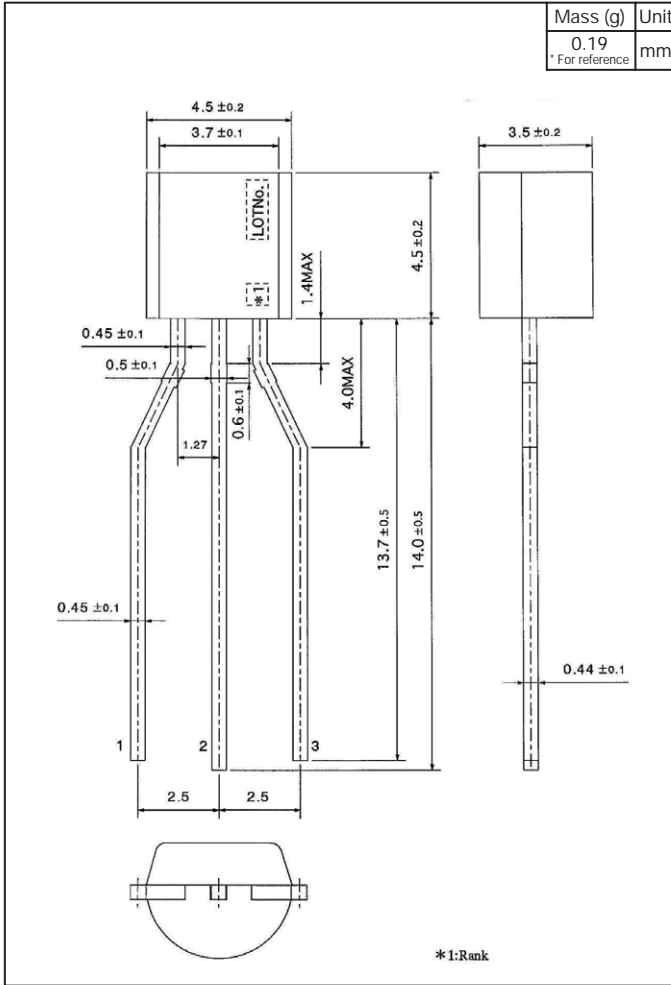
# 2SA608N/2SC536N



# 2SA608N/2SC536N

## Outline Drawing



2SA608NF-NPA-AT, 2SA608NG-NPA-AT, 2SC536NF-NPA-AT, 2SC536NG-NPA-AT



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