



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 $T_a=25^\circ\text{C}$

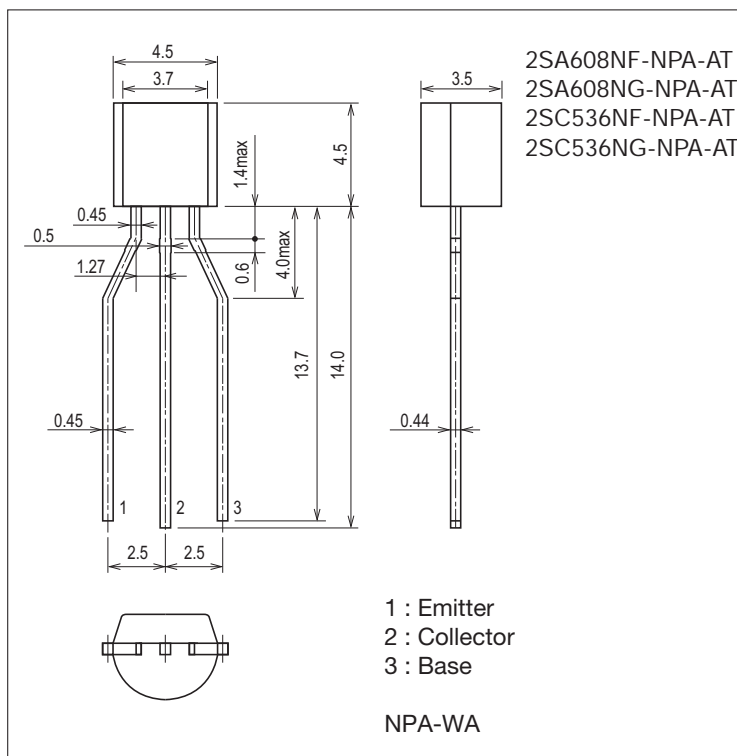
Parameter	Symbol	Conditions	Ratings	Unit
Collector to Base Voltage	V_{CB0}		(-50)60	V
Collector to Emitter Voltage	V_{CE0}		(-)50	V
Emitter to Base Voltage	V_{EB0}		(-)6	V
Collector Current	I_C		(-)150	mA
Collector Current (Pulse)	I_{CP}		(-)400	mA
Collector Dissipation	P_C		500	mW
Junction Temperature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

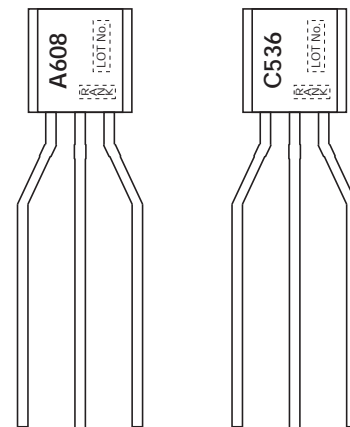
7542-001



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



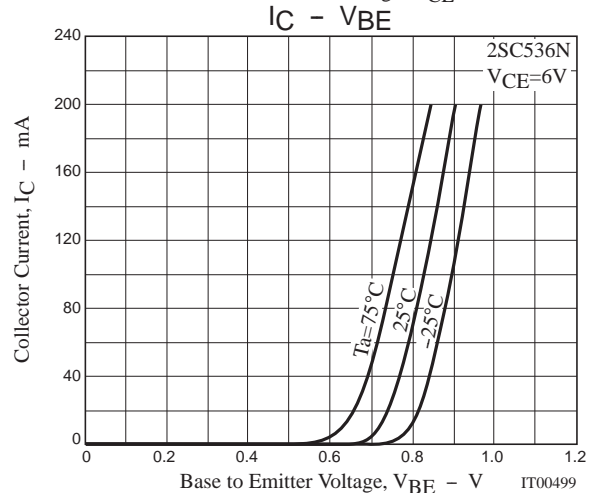
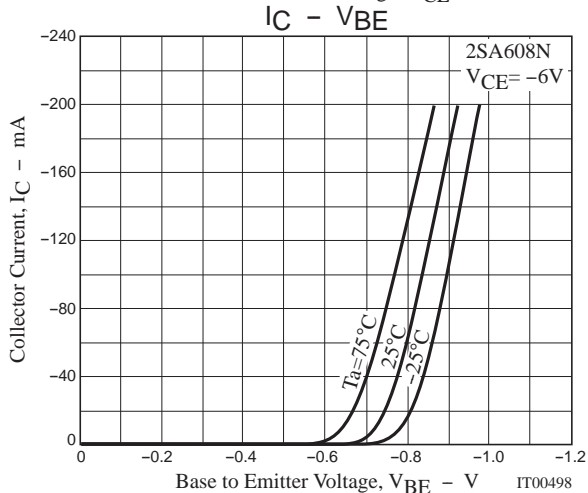
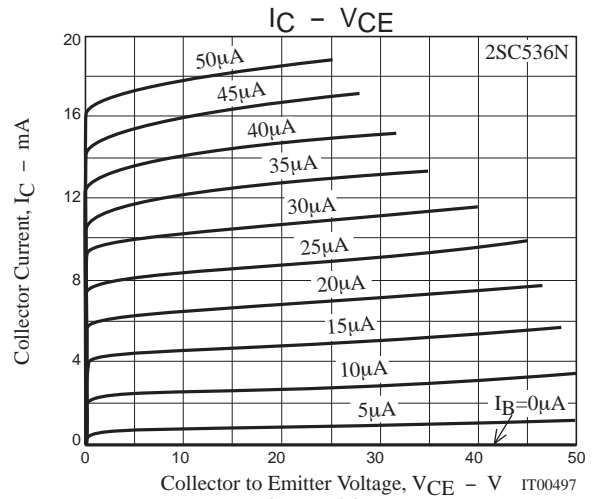
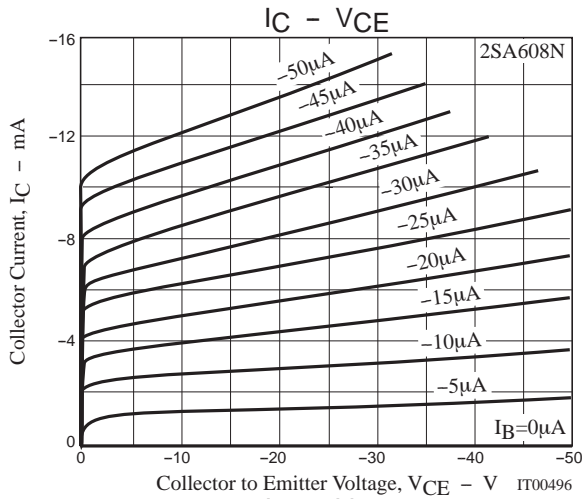
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Electrical Characteristics at Ta=25°C

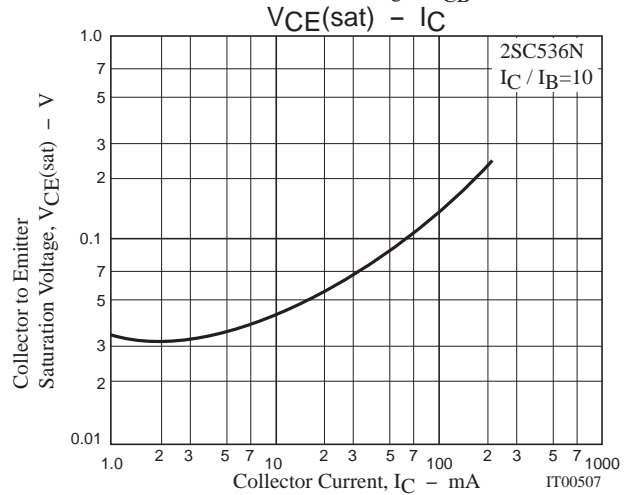
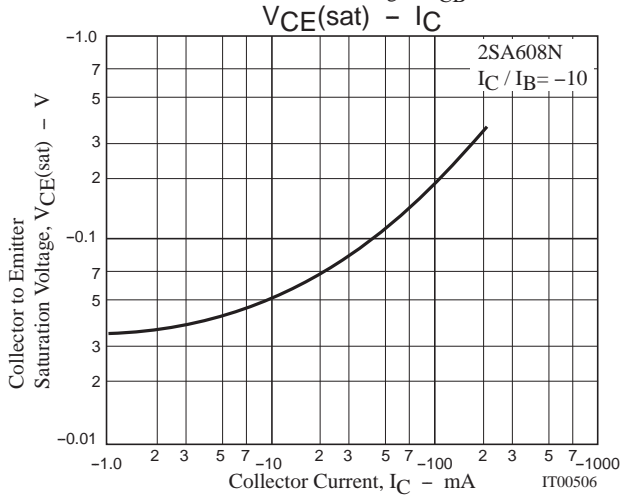
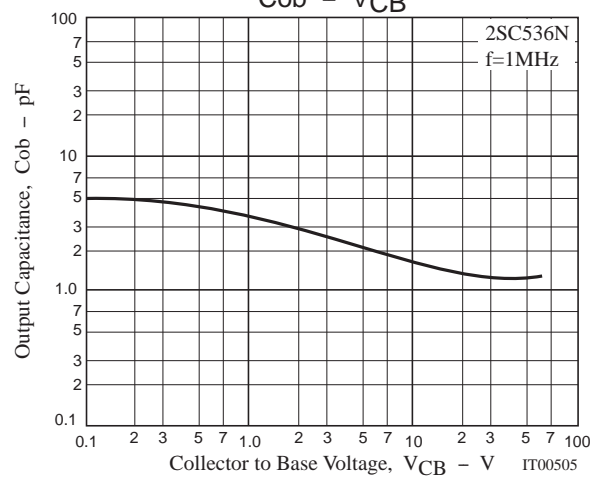
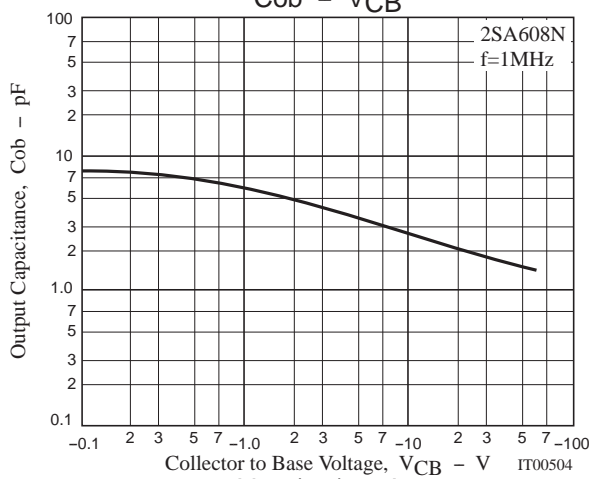
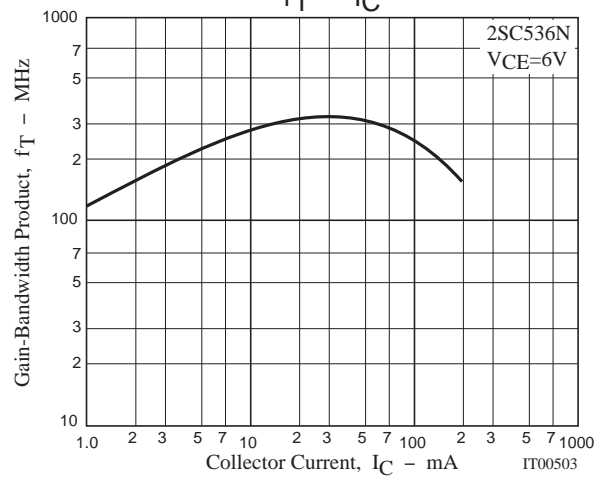
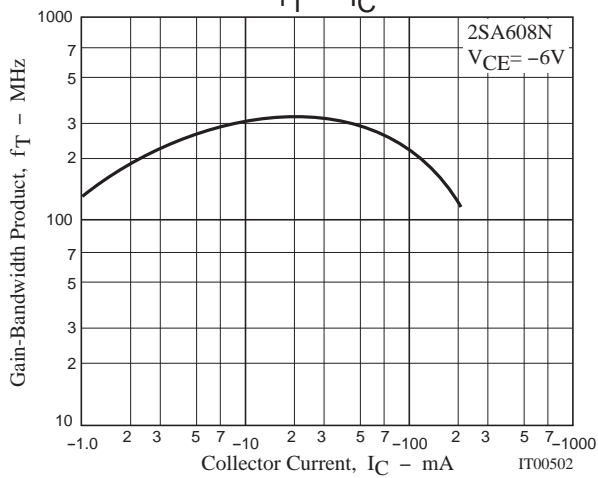
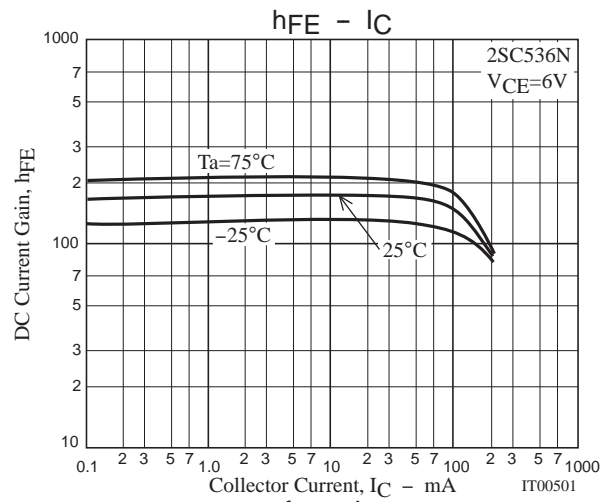
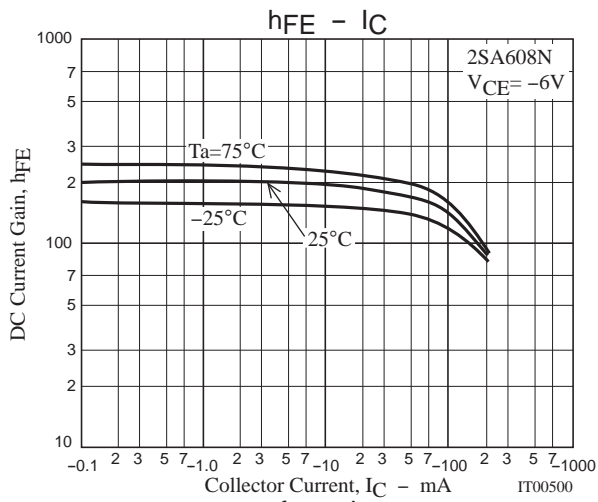
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40V, I_E=0A$			$(-)0.1$	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)5V, I_C=0A$			$(-)0.1$	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)6V, I_C=(-)1mA$	160*		560*	
	h_{FE2}	$V_{CE}=(-)6V, I_C=(-)0.1mA$	70			
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 :

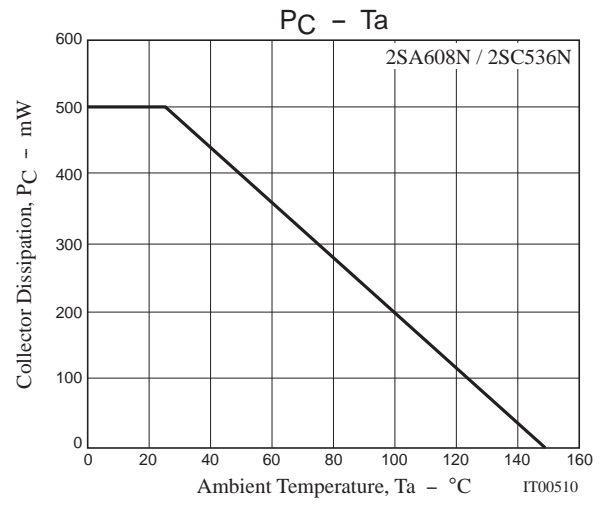
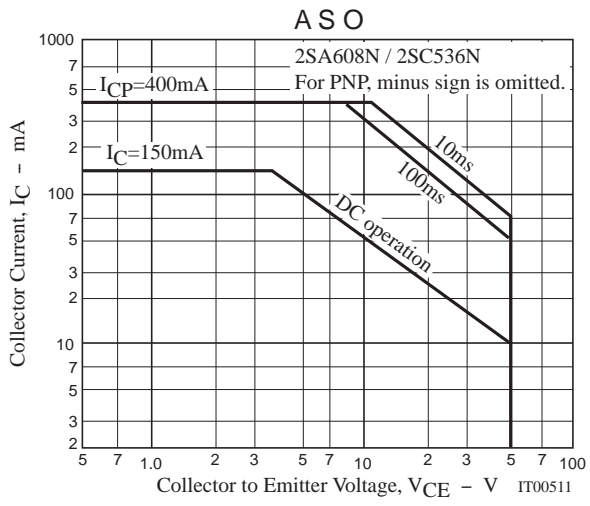
Rank	F	G
h_{FE}	160 to 320	280 to 560



2SA608N/2SC536N



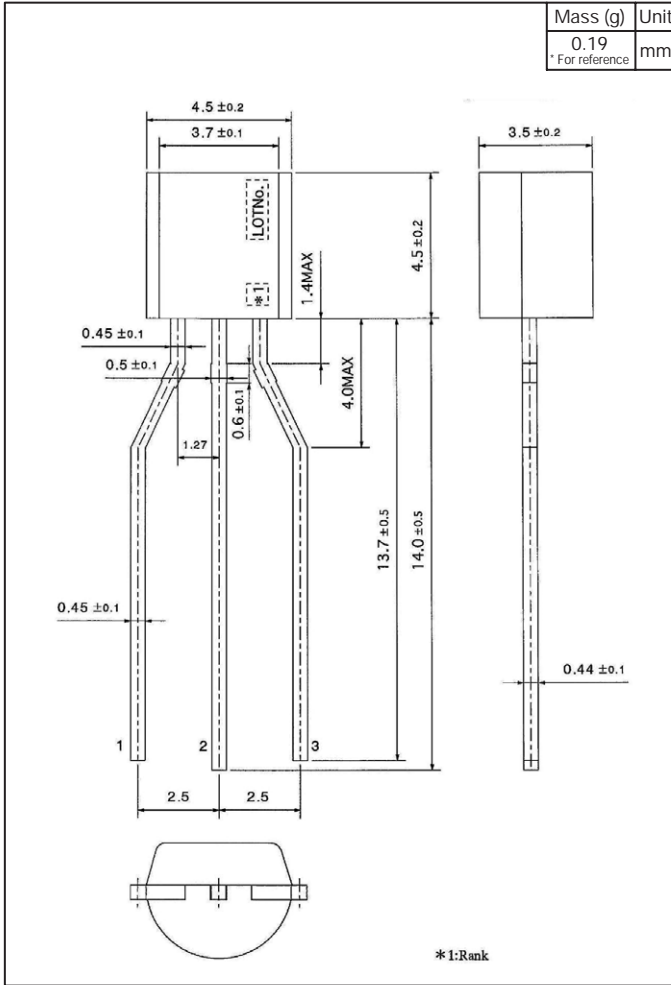
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2SA608N/2SC536N

Outline Drawing

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



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