



# 2SB698/2SD734

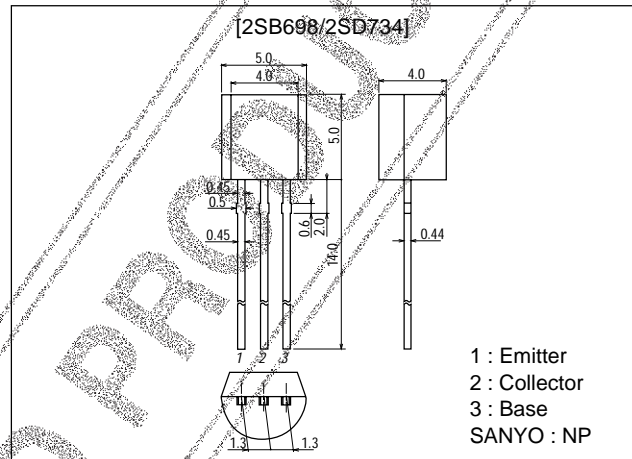
## 1W AF Output, Electronic Governor, DC-DC Converter Applications

### Features

Audio 1W output.

### Package Dimensions

unit:mm  
2003B



( ) : 2SB698

### Specifications

**Absolute Maximum Ratings** at Ta = 25 C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CB0</sub>		(-)25	V
Collector-to-Emitter Voltage	V <sub>CE0</sub>		(-)20	V
Emitter-to-Base Voltage	V <sub>EB0</sub>		(-)5	V
Collector Current	I <sub>C</sub>		(-)0.7	A
Collector Current (Pulse)	I <sub>CP</sub>		(-)1.5	A
Collector Dissipation	P <sub>C</sub>		0.6	W
Junction Temperature	T <sub>J</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

**Electrical Characteristics** at Ta = 25 C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =(-)20V, I <sub>E</sub> =0			(-)1.0	μA
Emitter Cutoff Current	I <sub>EB0</sub>	V <sub>EB</sub> =(-)4V, I <sub>C</sub> =0			(-)1.0	μA
DC Current Gain	h <sub>FE1</sub>	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)50mA	60*		560*	
	h <sub>FE2</sub>	V <sub>CE</sub> =(-)2V, I <sub>C</sub> =(-)500mA	50			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =(-)10V, I <sub>C</sub> =(-)50mA		250		MHz

\* : The 2SB698/2SD734 are classified by 50mA h<sub>FE</sub> as follows :

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Rank	D	E	F	G
h <sub>FE</sub>	60 to 120	100 to 200	160 to 320	280 to 560

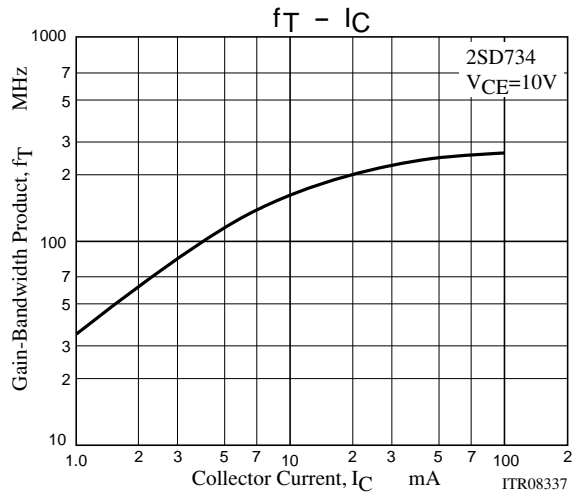
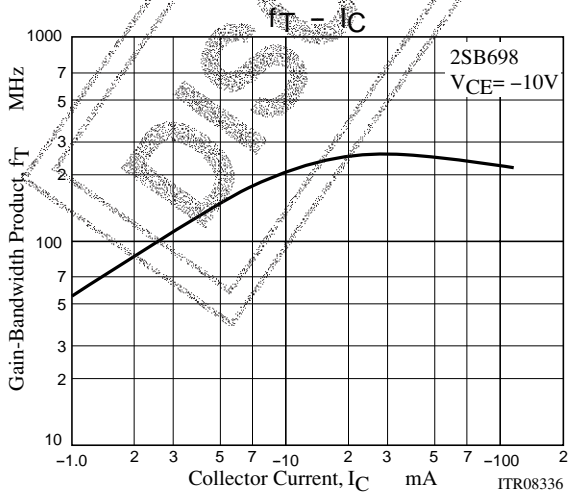
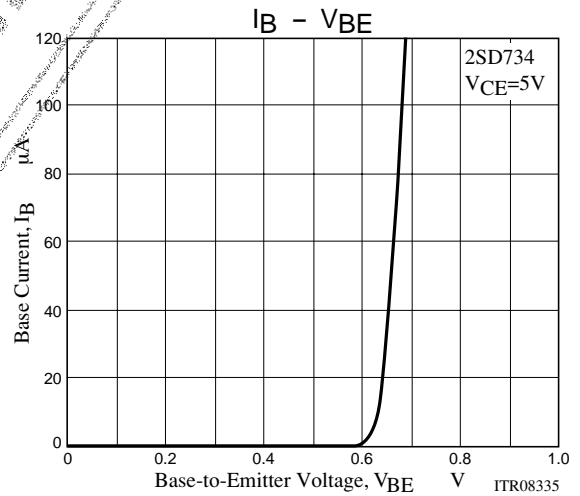
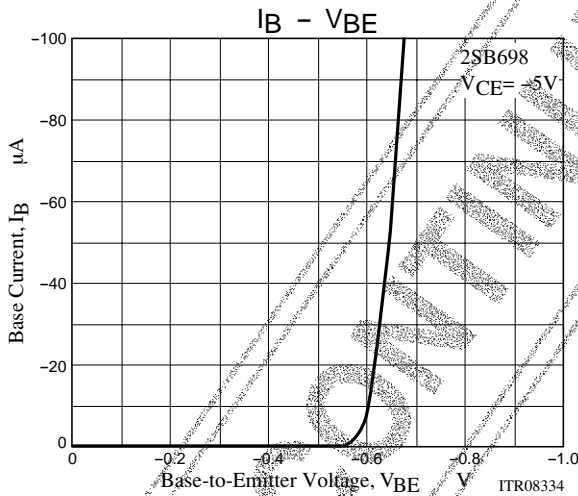
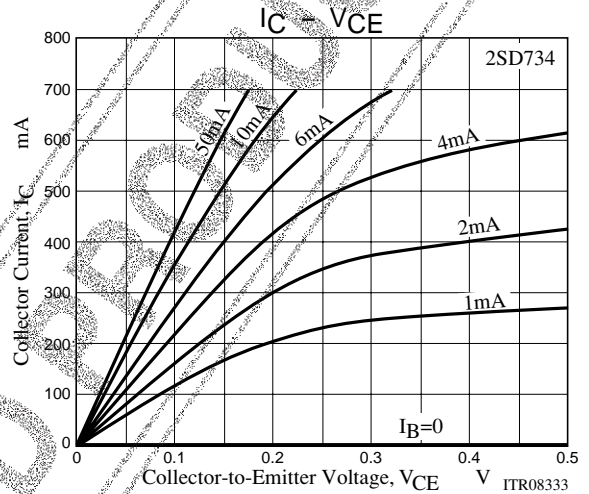
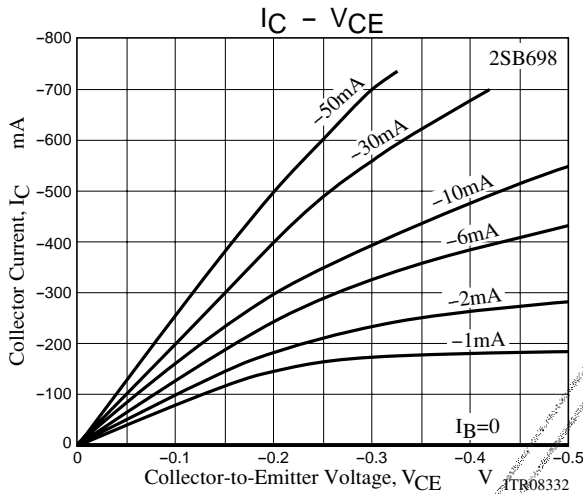
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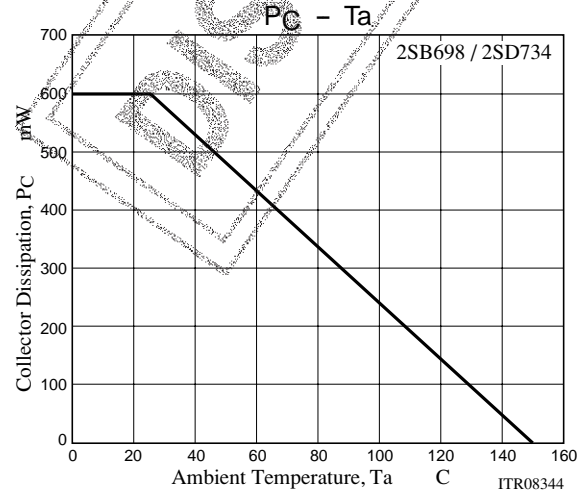
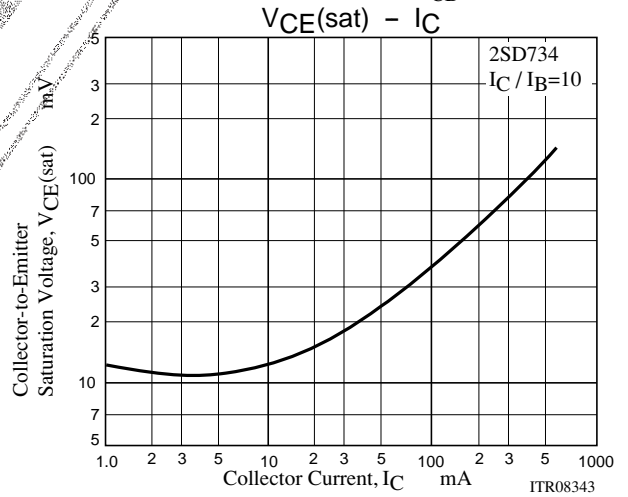
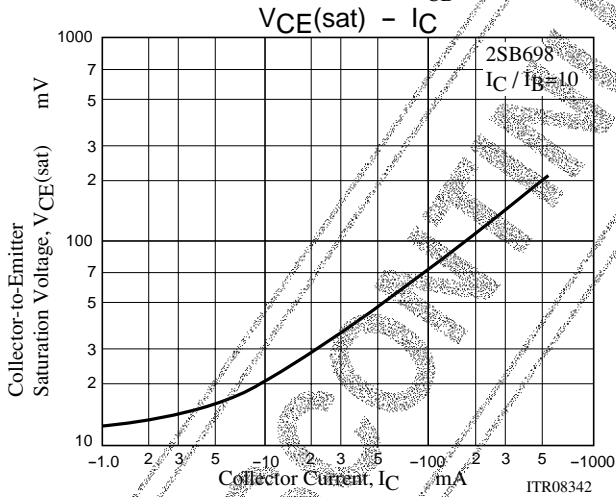
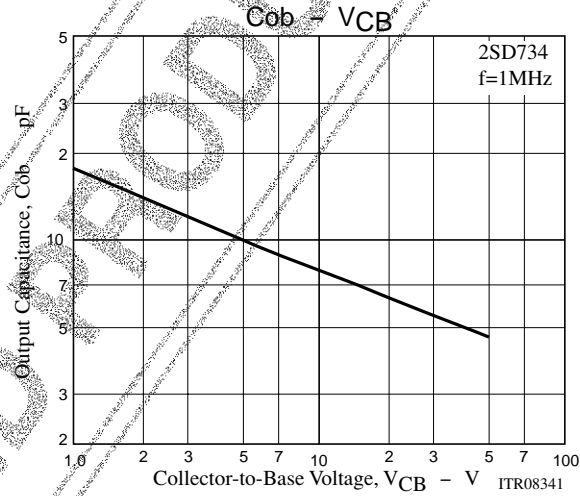
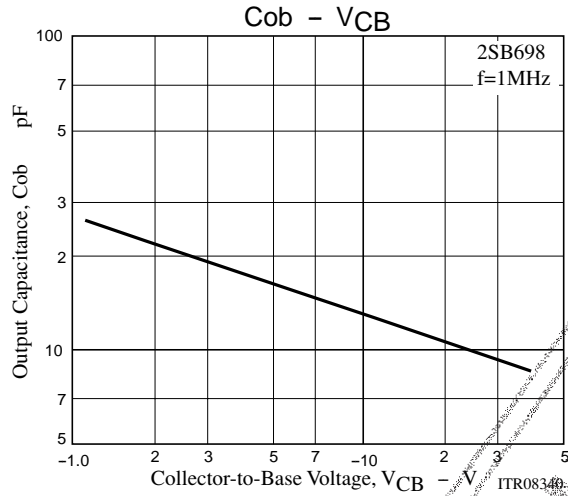
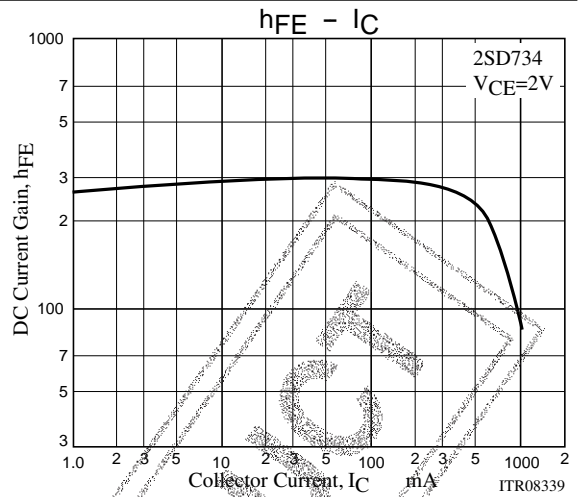
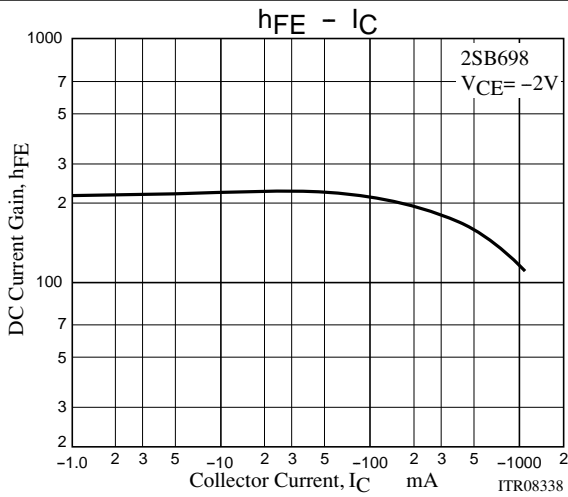
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	$C_{ob}$	$V_{CB}=(-)10V, f=1MHz$		(13)		pF
				8		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.2)	(-0.45)	V
				0.13	0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500mA, I_B=(-)50mA$		(-0.9)		V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$		(-25)		V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$		(-20)		V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$		(-5)		V



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