



No.512F

**2SB698/2SD734**

PNP/NPN Epitaxial Planar Silicon Transistors  
**1W AF Output, Electronic Governor,  
 DC-DC Converter Applications**

( ) : 2SB698 for audio 1W output.

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

			unit
Collector to Base Voltage	$V_{CB0}$	(-)25	V
Collector to Emitter Voltage	$V_{CE0}$	(-)20	V
Emitter to Base Voltage	$V_{EB0}$	(-)5	V
Collector Current	$I_C$	(-)0.7	A
Collector Current(Pulse)	$I_{CP}$	(-)1.5	A
Collector Dissipation	$P_C$	0.6	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

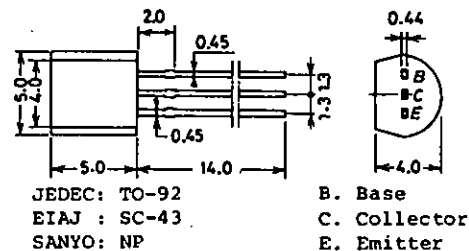
**Electrical Characteristics at  $T_a=25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)20\text{V}, I_E=0$			(-)1.0	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4\text{V}, I_C=0$			(-)1.0	$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$	60*		560*	
	$h_{FE(2)}$	$V_{CE}=(-)2\text{V}, I_C=(-)500\text{mA}$	50			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		250		MHz
Output Capacitance	$c_{ob}$	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(13)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500\text{mA}, I_B=(-)50\text{mA}$		(-0.2)	(-0.45)	V
				0.13	0.3	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500\text{mA}, I_B=(50\text{mA})$		(-)0.9		V
C-B Saturation Voltage	$V_{(BR)CB0}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)20			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_C=(-)10\mu\text{A}, I_C=0$	(-)5			V

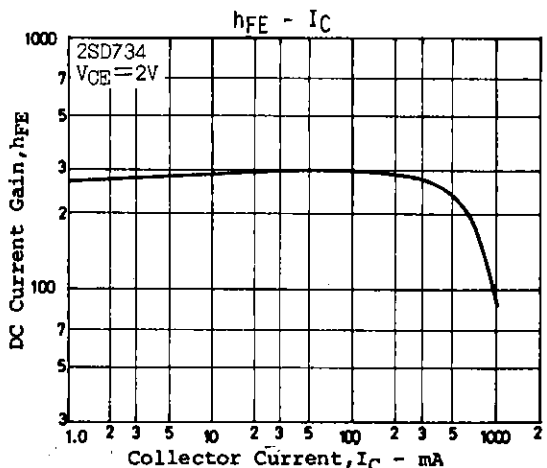
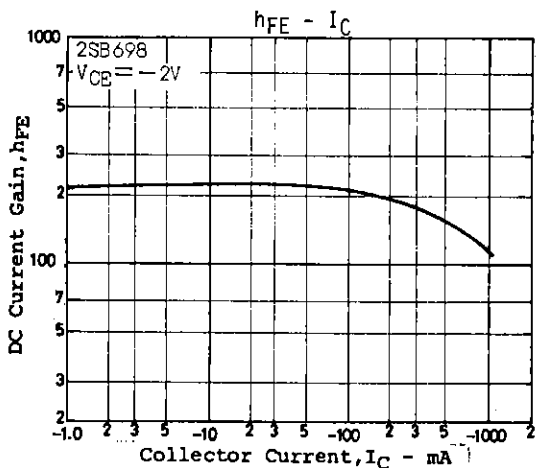
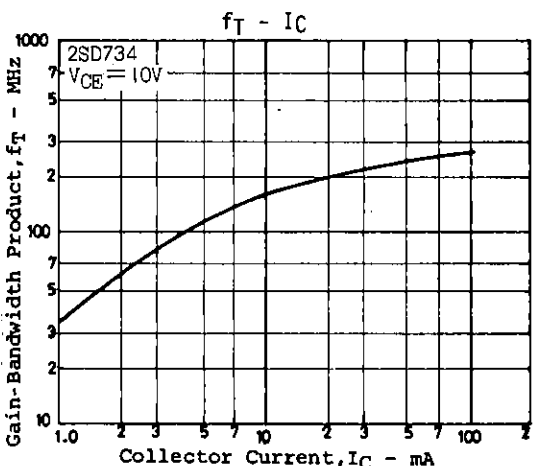
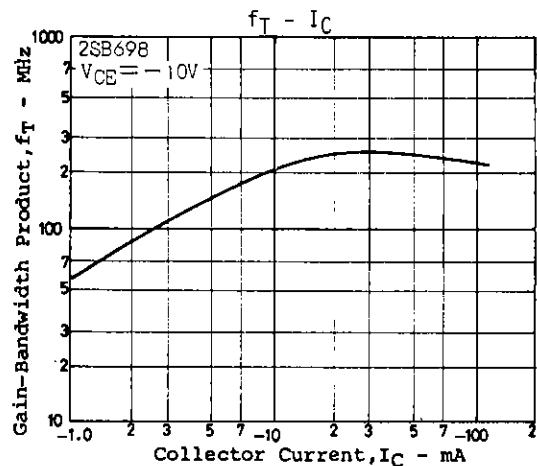
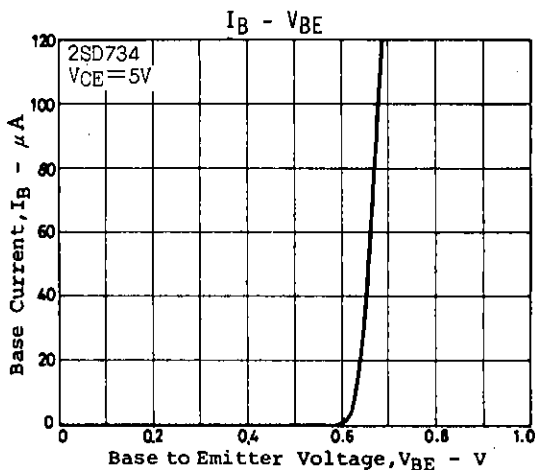
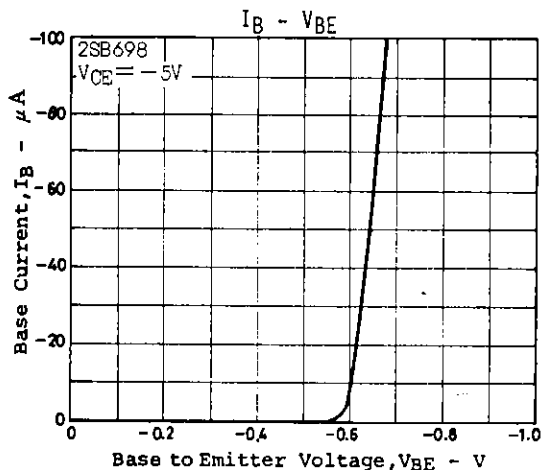
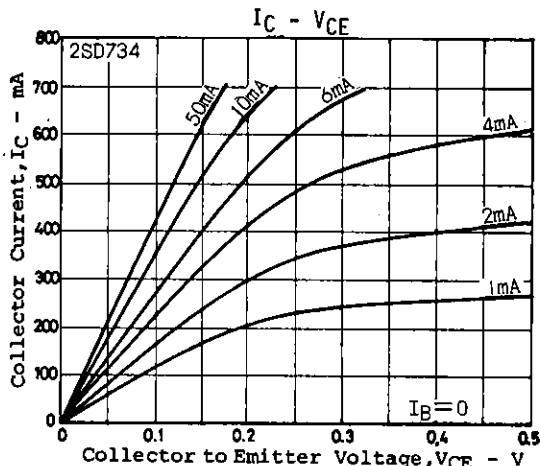
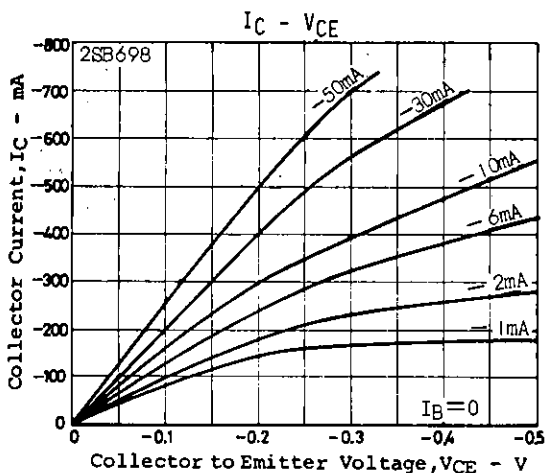
\*:2SB698/2SD734 are classified by 50mA  $h_{FE}$  as follows:

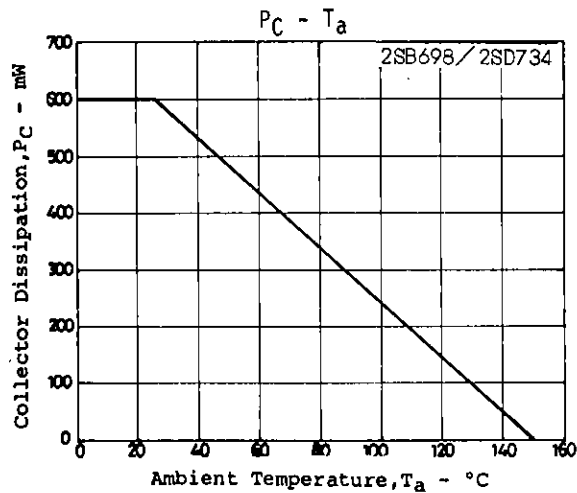
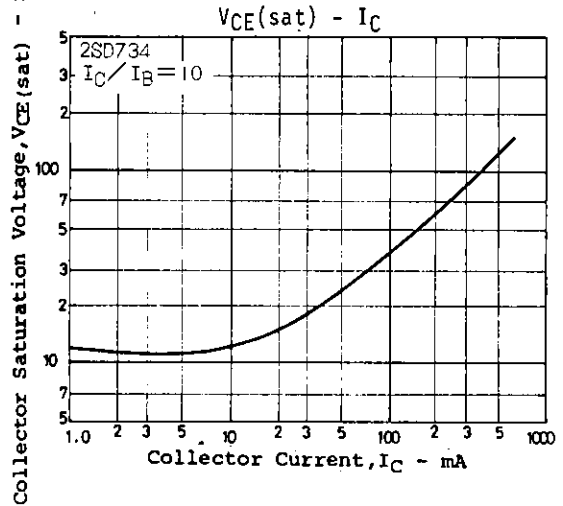
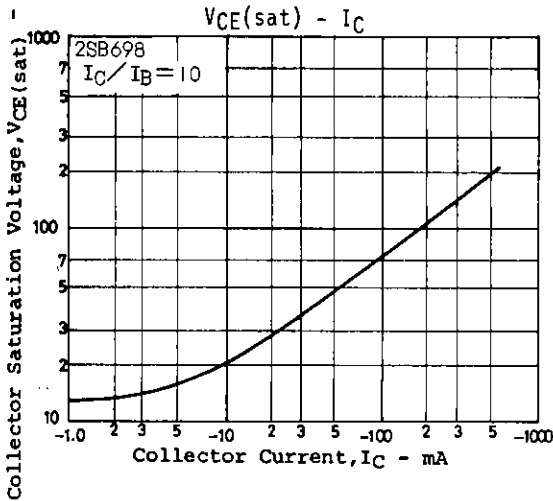
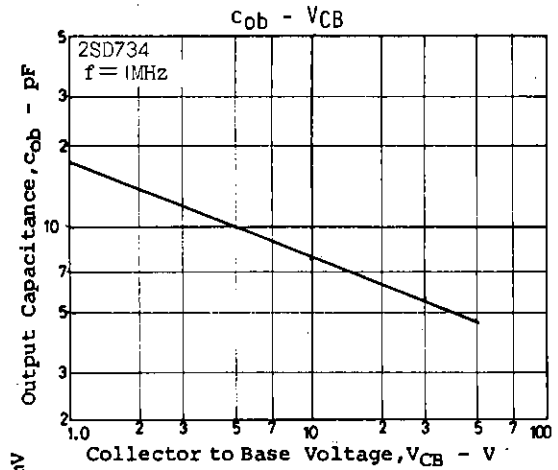
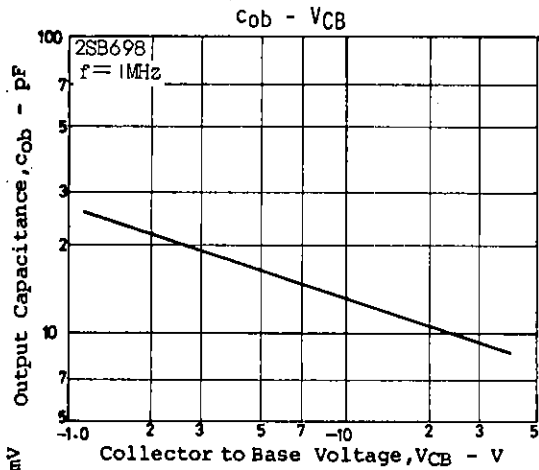
60	D	120	100	E	200	160	F	320	280	G	560
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**Package Dimensions 2003A**  
(unit: mm)



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