Ordering number:512F

PNP/NPN Epitaxial Planar Silicon Transistor

2SB698/2SD734

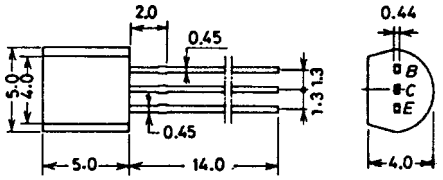
1W AF Output, Electronic Governor, DC-DC Converter Applications

Package Dimensions

unit:mm

2003A

[2SB698/2SD734]



JEDEC : TO-92
EIAJ : SC-43
SANYO : NP

B : Base
C : Collector
E : Emitter

( ) : 2SB698 for audio 1W output.

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(–)25	V
Collector-to-Emitter Voltage	V_{CEO}		(–)20	V
Emitter-to-Base Voltage	V_{EBO}		(–)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	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=(–)20V, I_E=0			(–)1.0	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(–)4V, I_C=0			(–)1.0	μA
DC Current Gain	$h_{FE}1$	V_{CE}=(–)2V, I_C=(–)50mA	60*		560*	
	$h_{FE}2$	V_{CE}=(–)2V, I_C=(–)500mA	50			
Gain-Bandwidth Product	f_T	V_{CE}=(–)10V, I_C=(–)50mA		250		MHz
Output Capacitance	C_{ob}	V_{CB}=(–)10V, f=1MHz		(13)		pF
				8		pF

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

60	D	120	100	E	200	160	F	320	280	G	560

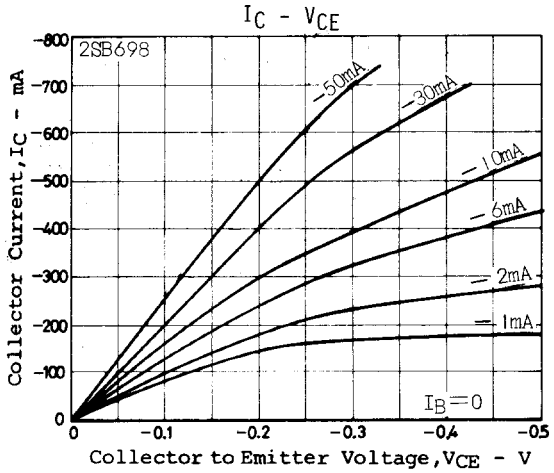
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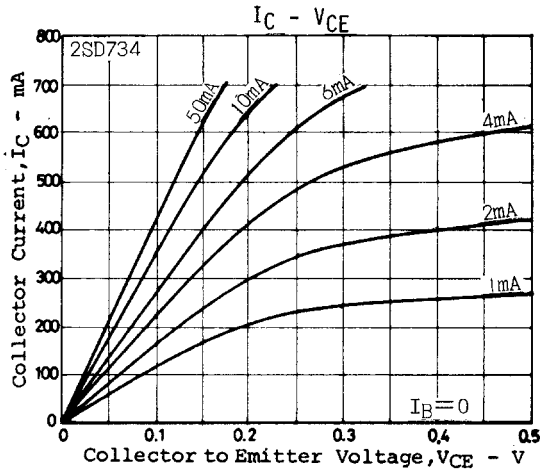
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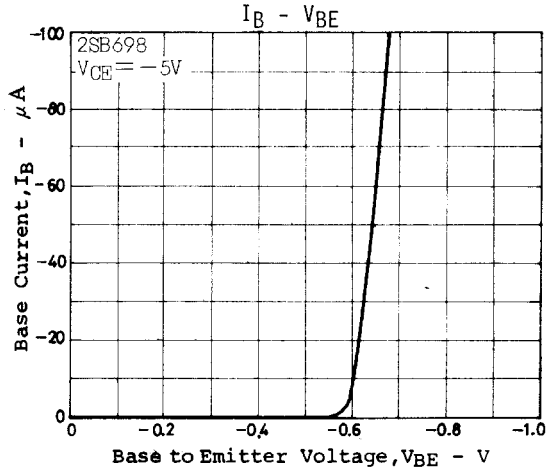
SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

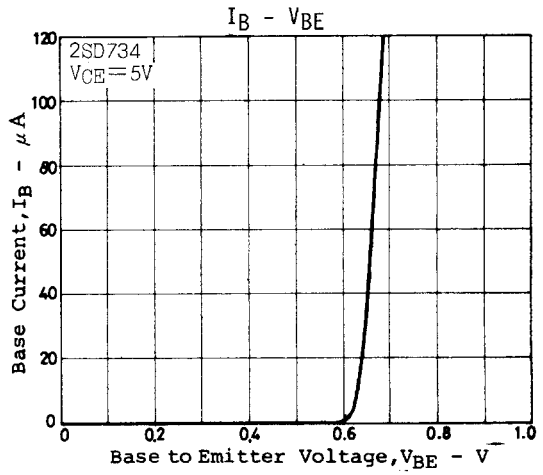
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

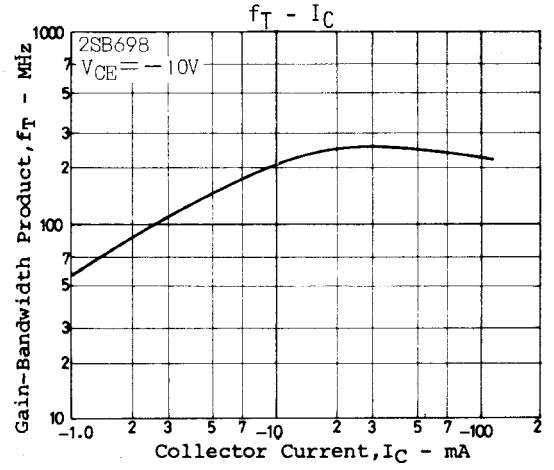
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=(–)500mA, I_B=(–)50mA		(–0.2)	(–0.45)	V
				0.13	0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=(–)500mA, I_B=(–)50mA		(–)0.9		V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(–)10μA, I_E=0	(–)25			V
Collector-to-Emitter Brakdown Voltage	$V_{(BR)CEO}$	I_C=(–)1mA, R_{BE}=∞	(–)20			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(–)10μA, I_C=0	(–)5			V

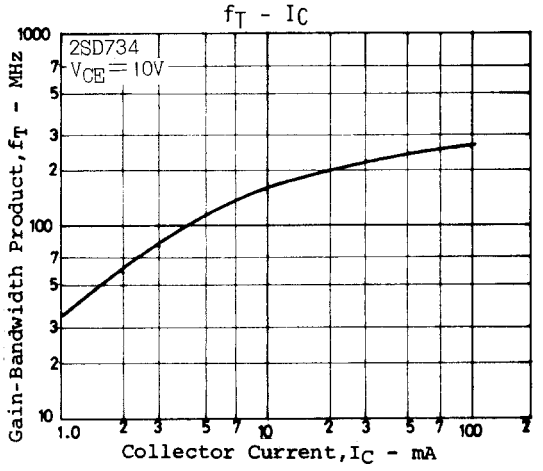


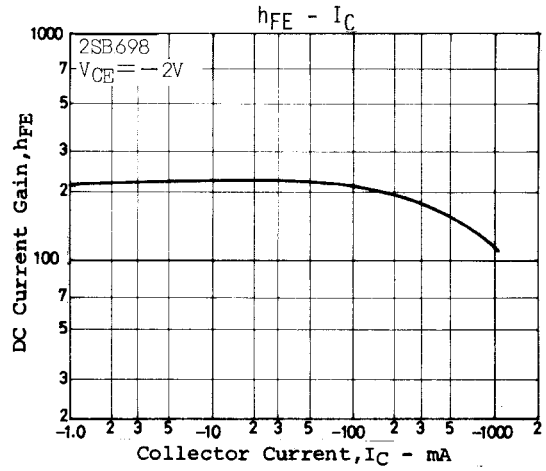


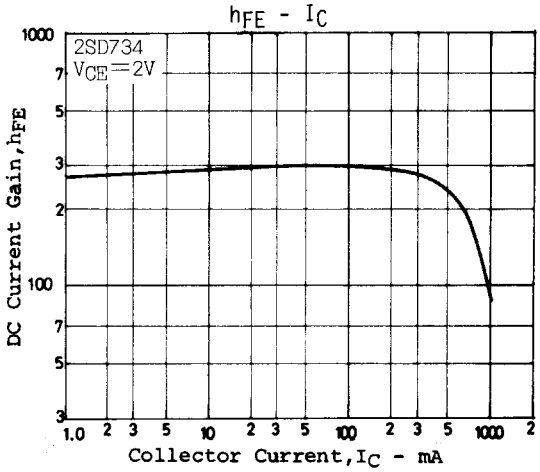


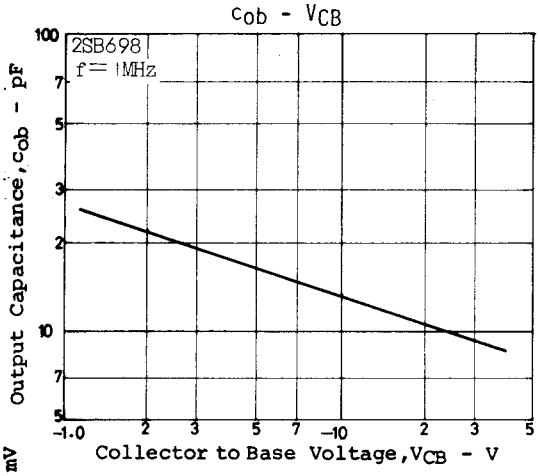


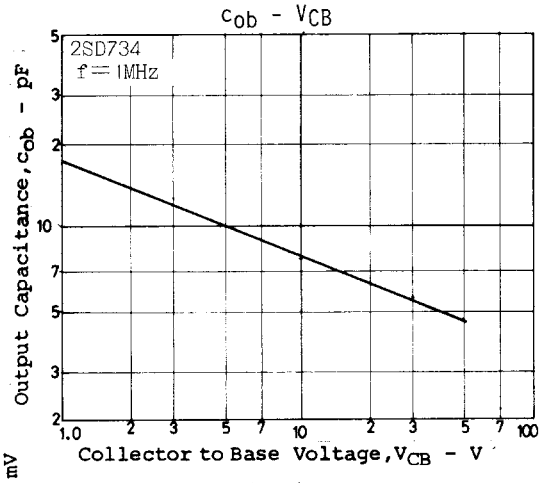


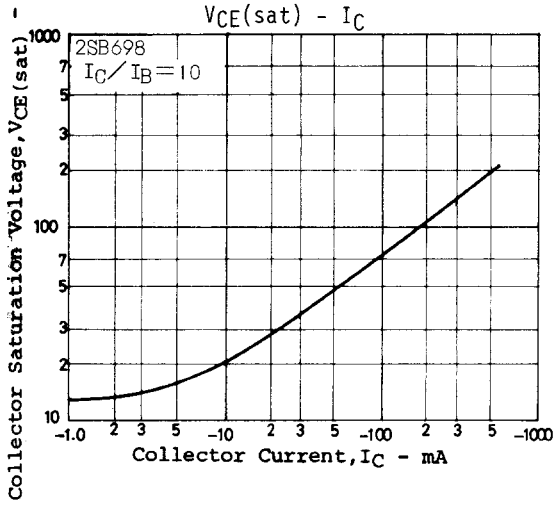


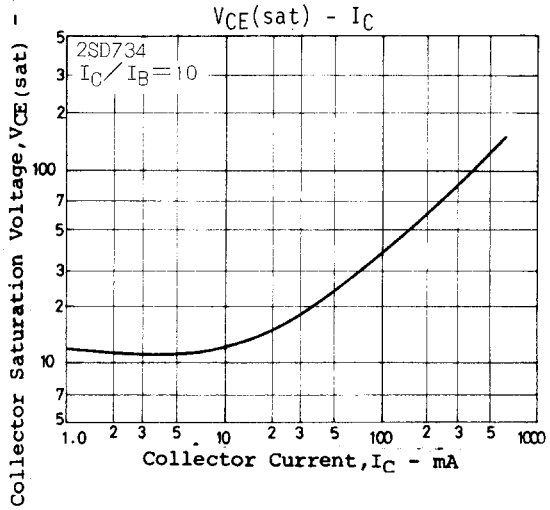

hFE - IC
2SB698
VCE=−2V
DC Current Gain,hFE
Collector Current,IC - mA

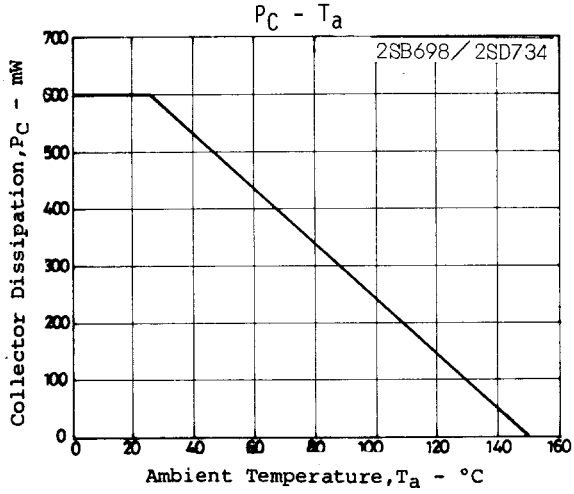

hFE - IC
2SD734
VCE=2V
DC Current Gain,hFE
Collector Current,IC - mA


Cob - VCB
2SB698
f=1MHz
Output Capacitance,Cob - pF
Collector to Base Voltage,VCB - V


Cob - VCB
2SD734
f=1MHz
Output Capacitance,Cob - pF
Collector to Base Voltage,VCB - V


VCE(sat) - IC
2SB698
IC/IB=10
Collector Saturation Voltage,VCE(sat) - mV
Collector Current,IC - mA


VCE(sat) - IC
2SD734
IC/IB=10
Collector Saturation Voltage,VCE(sat) - mV
Collector Current,IC - mA


PC - Ta
2SB698/2SD734
Collector Dissipation,PC - mW
Ambient Temperature,Ta - °C

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