Ordering number: EN 2468

SANYO

No.2468

2SB1296/2SD1936

PNP/ NPN Epitaxial Planar Silicon Transistors

AF Amp Applications

Applications

. AF power amp, medium-speed switching, small-sized motor drivers

Features

. Large current capacity
. Low collector to emitter saturation voltage
. Wide ASO

( ): 2SB1296

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CBO}	(-)15	V
Collector to Emitter Voltage	V_{CEO}	(-)15	V
Emitter to Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)0.8	A
Collector Current(Pulse)	I_{CP}	(-)3	A
Collector Dissipation	P_C	300	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta=25°C

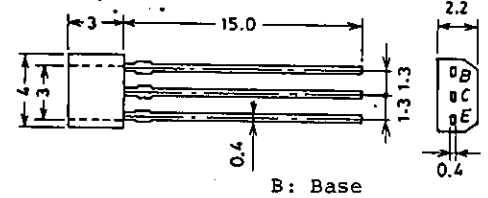
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)12V,I_E=0			(-)100	nA
Emitter Curoff Current	I_{EBO}	V_{EB}=(-)4V,I_C=0			(-)100	nA
DC Current Gain	$h_{FE(1)}$	V_{CE}=(-)2V,I_C=(-)50mA	140*		(560)* 800*	
	$h_{FE(2)}$	V_{CE}=(-)2V,I_C=(-)800mA	80			
Gain-Bandwidth Product	f_T	V_{CE}=(-)2V,I_C=(-)50mA		(300) 200		MHz
Output Capacitance	c_{ob}	V_{CB}=(-)10V,f=1MHz		(15)10		pF

Continued on next page.

*: The 2SB1296/2SD1936 are classified by 50mA h_{FE} as follows:

2SB1296	140 S 280	200 T 400	280 U 560	
2SD1936	140 S 280	200 T 400	280 U 560	400 V 800

Package Dimensions 2033
(unit: mm)



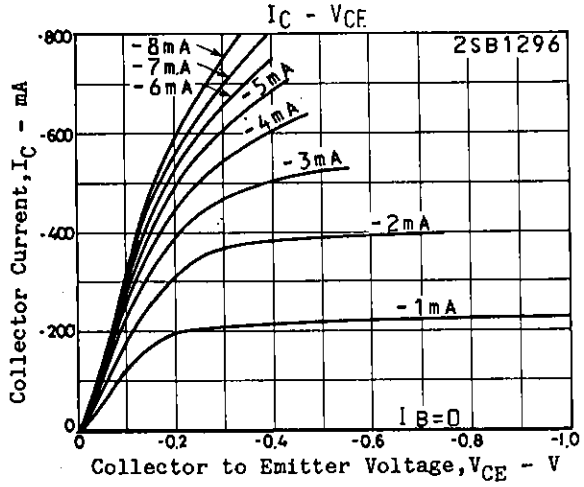
B: Base
C: Collector
E: Emitter

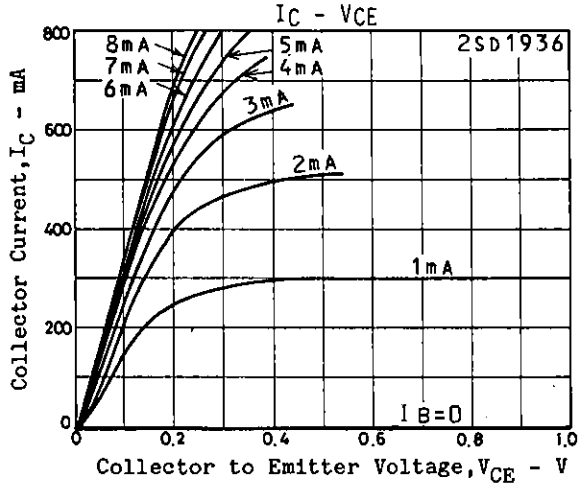
SANYO: SPA

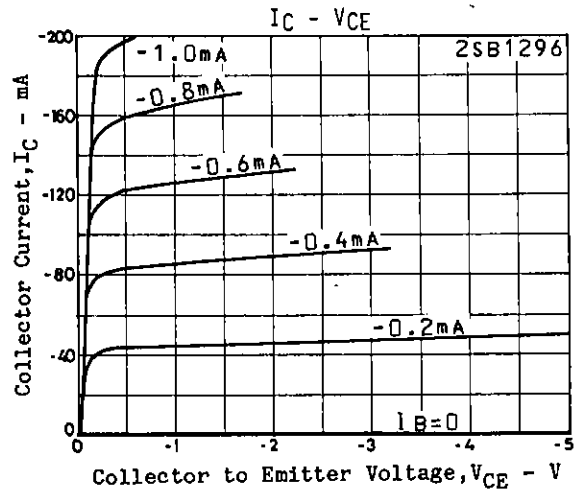
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

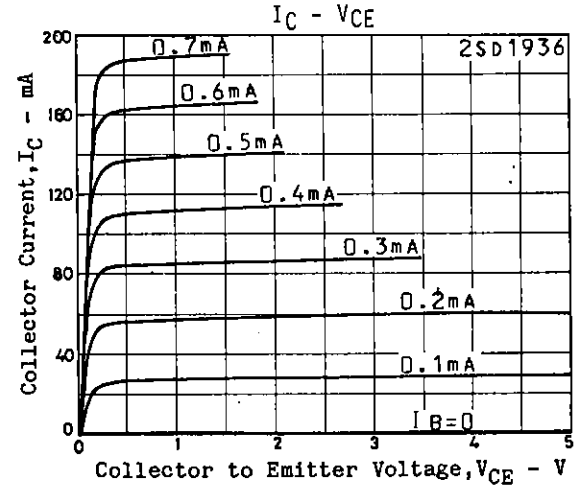
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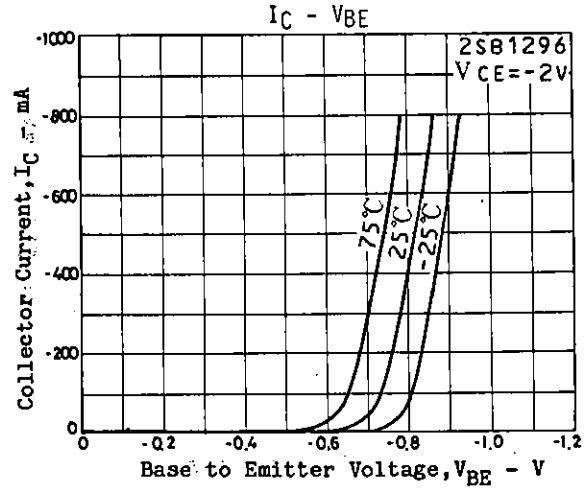
			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)1}$	I_C=(-)5mA, I_B=(-)0.5mA		(-)10	(-)25	mV
	$V_{CE(sat)2}$	I_C=(-)400mA, I_B=(-)20mA		(-)100	(-)200	mV
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=(-)400mA, I_B=(-)20mA		(-)0.9	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0	(-)15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0	(-)5			V

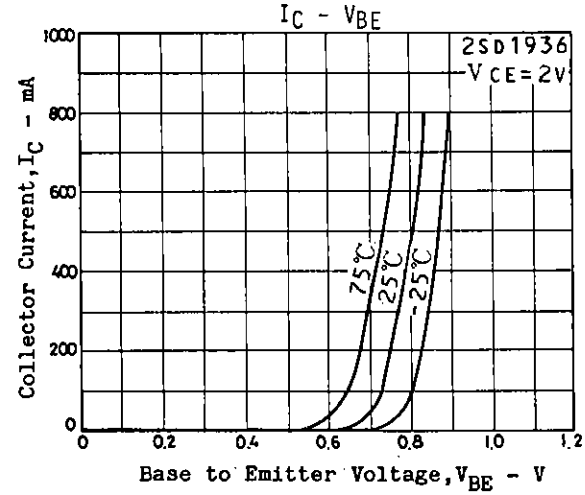


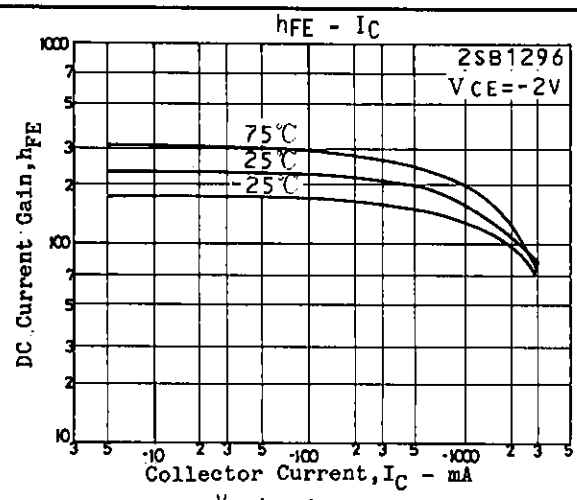


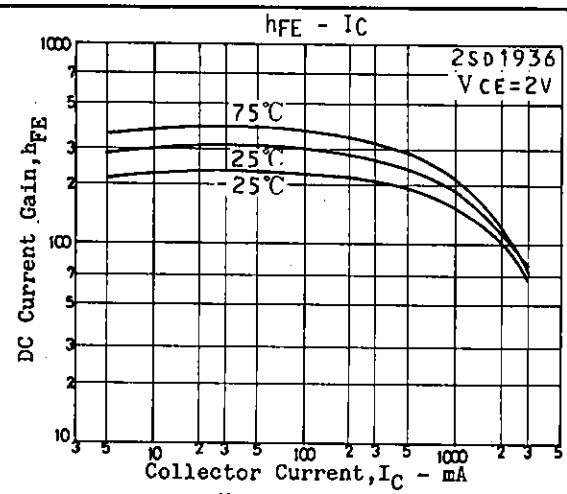


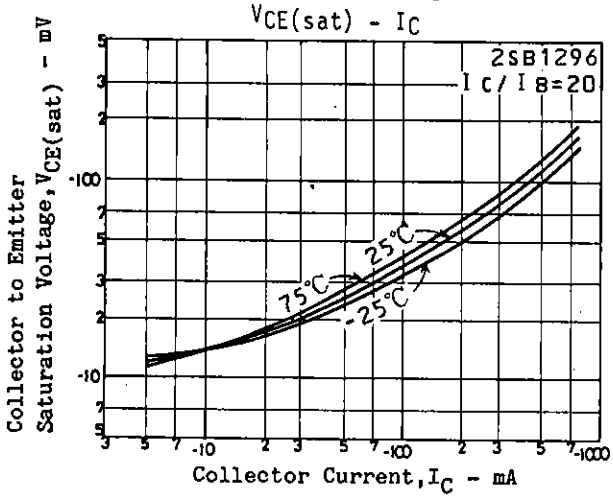


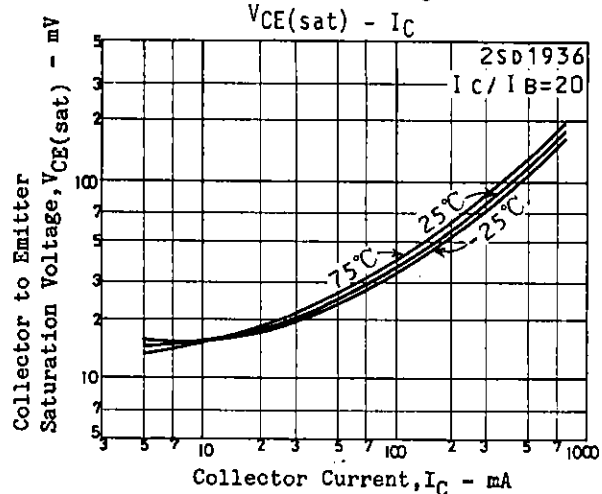


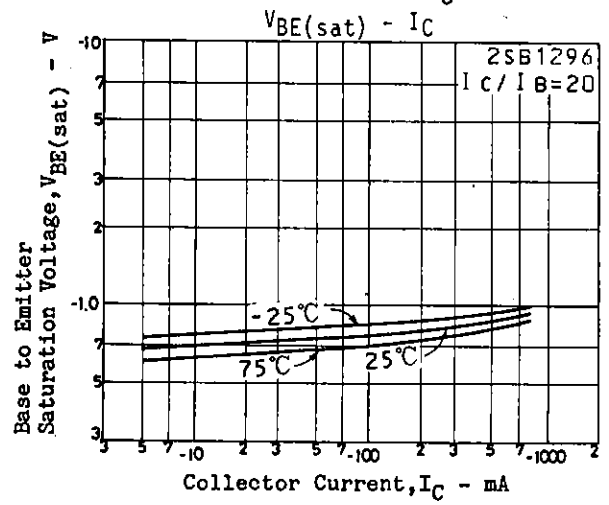


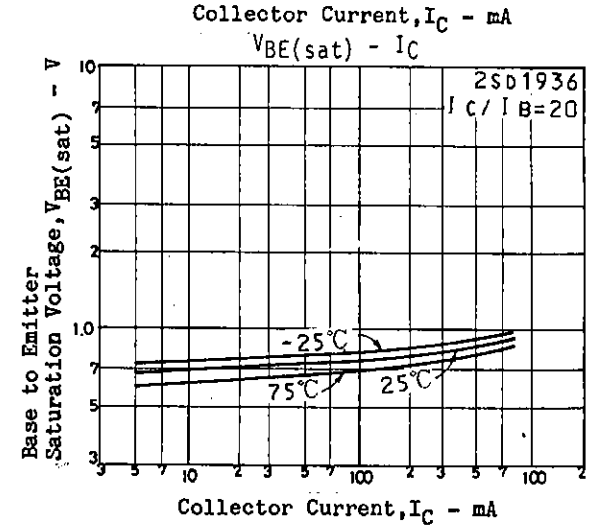

hFE - IC
2SB1296
VCE=-2V
75℃
25℃
-25℃
DC Current Gain,hFE
Collector Current,IC - mA

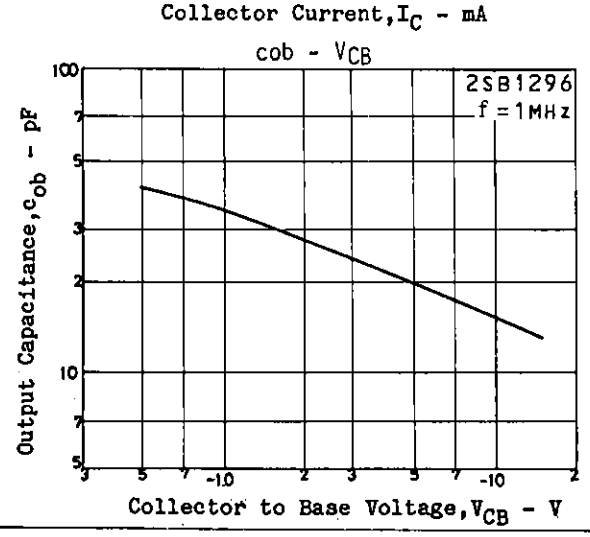

hFE - IC
2SD1936
VCE=2V
75℃
25℃
-25℃
DC Current Gain,hFE
Collector Current,IC - mA

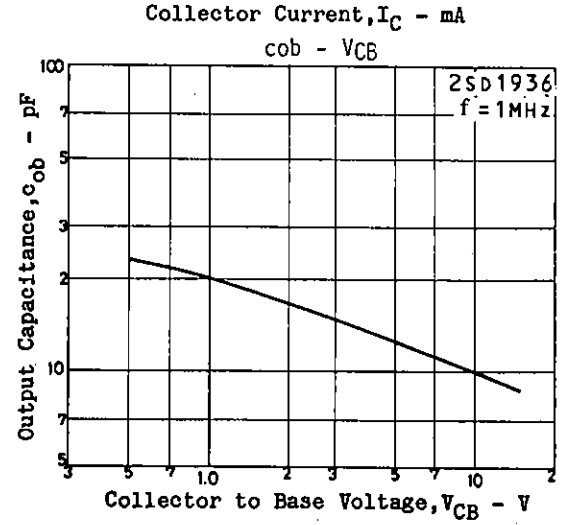

VCE(sat) - IC
2SB1296
IC/IB=20
75℃
25℃
-25℃
Collector to Emitter Saturation Voltage,VCE(sat) - mV
Collector Current,IC - mA

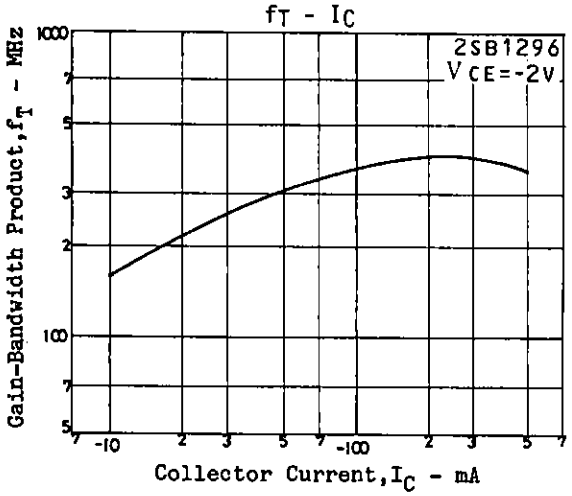

VCE(sat) - IC
2SD1936
IC/IB=20
75℃
25℃
-25℃
Collector to Emitter Saturation Voltage,VCE(sat) - mV
Collector Current,IC - mA

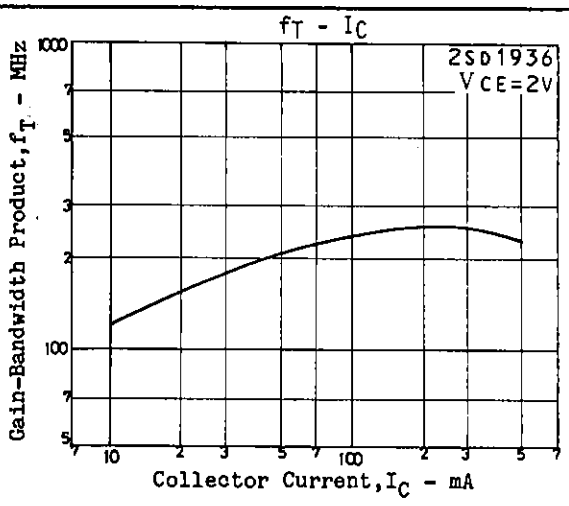

VBE(sat) - IC
2SB1296
IC/IB=20
-25℃
75℃
25℃
Base to Emitter Saturation Voltage,VBE(sat) - V
Collector Current,IC - mA

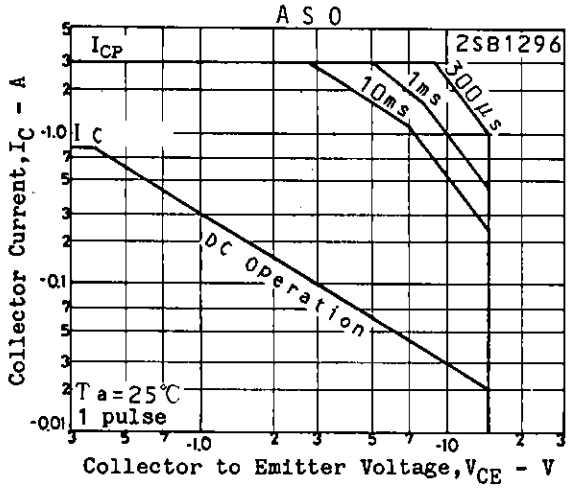

VBE(sat) - IC
2SD1936
IC/IB=20
-25℃
75℃
25℃
Base to Emitter Saturation Voltage,VBE(sat) - V
Collector Current,IC - mA

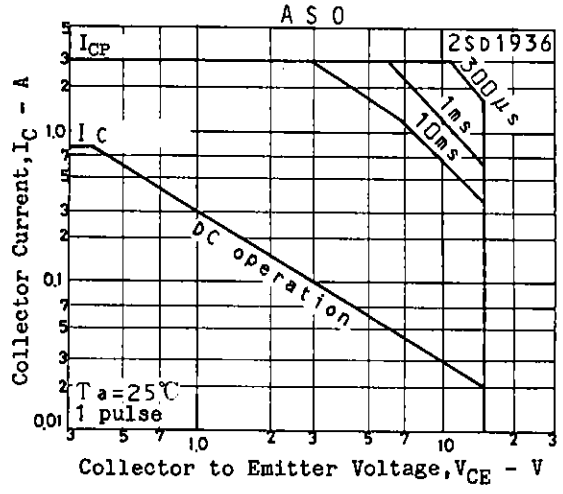

cob - VCB
2SB1296
f=1MHz
Output Capacitance,cob - pF
Collector to Base Voltage,VCB - V

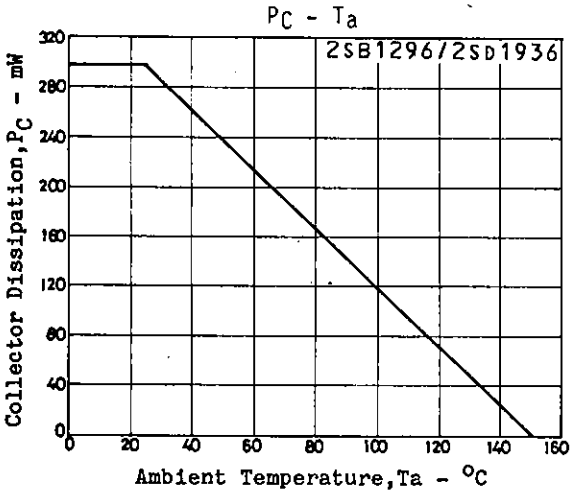

cob - VCB
2SD1936
f=1MHz
Output Capacitance,cob - pF
Collector to Base Voltage,VCB - V











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