Ordering number:EN2456

PNP Epitaxial Planar Silicon Transistor

2SA1436

High h_{FE}, AF Amplifier Applications

Applications

- AF amplifier, various drivers, muting circuit.

Features

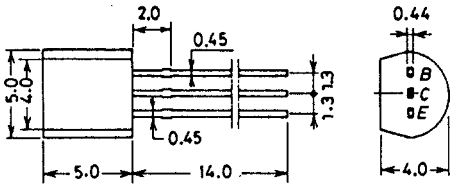
- Adoption of MBIT process.
- High DC current gain (h_{FE}=500 to 1200).
- Large current capacity.
- Low collector-to-emitter saturation voltage ($V_{CE(sat)}$=0.5V max).
- High V_{EBO} ($V_{EBO}\geq$15V).

Package Dimensions

unit:mm

2003A

[2SA1436]



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

1 : Emitter
2 : Collector
3 : Base

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–60	V
Collector-to-Emitter Voltage	V_{CEO}		–50	V
Emitter-to-Base Voltage	V_{EBO}		–15	V
Collector Current	I_C		–200	mA
Collector Current (Pulse)	I_{CP}		–300	mA
Collector Dissipation	P_C		600	mW
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}=–40V, I_E=0			–0.1	µA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–10V, I_C=0			–0.1	µA
DC Current Gain	$h_{FE}1$	V_{CE}=–5V, I_C=–10mA	500	800	1200	
	$h_{FE}2$	V_{CE}=–5V, I_C=–100mA	200			
Gain-Bandwidth Product	f_T	V_{CE}=–10V, I_C=–10mA		100		MHz
Output Capacitance	C_{ob}	V_{CB}=–10V, f=1MHz		7.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–100mA, I_B=–2mA		–0.2	–0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=–100mA, I_B=–2mA		–0.75	–1.1	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=–10µA, I_E=0	–60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=–1mA, $R_{BE}=\infty$	–50			V
Emitter-to-Base Breakdown Votage	$V_{(BR)EBO}$	I_E=–10µA, I_C=0	–15			V

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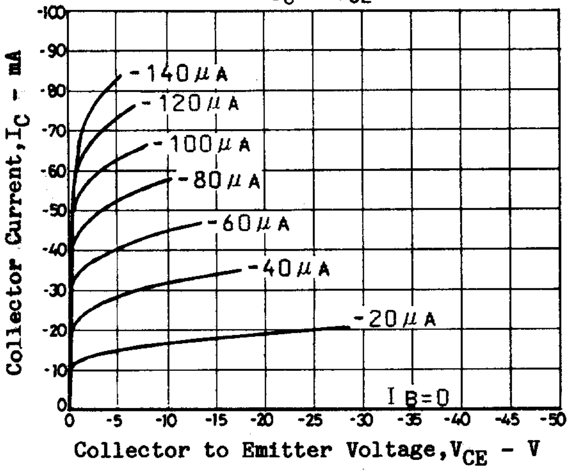
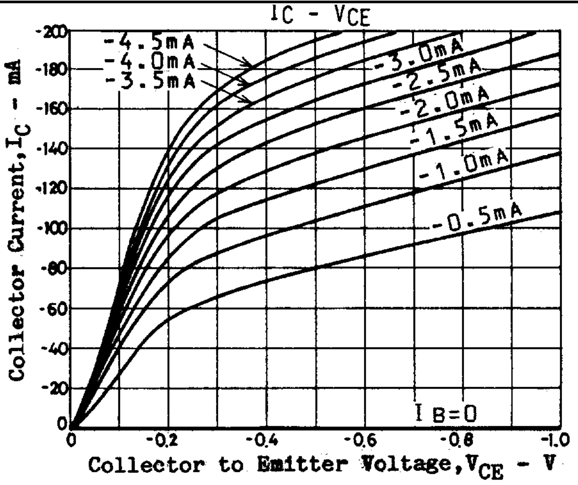
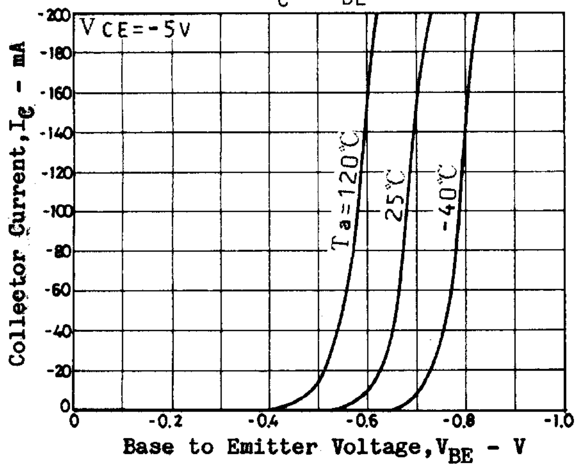
I_C - V_{CE}



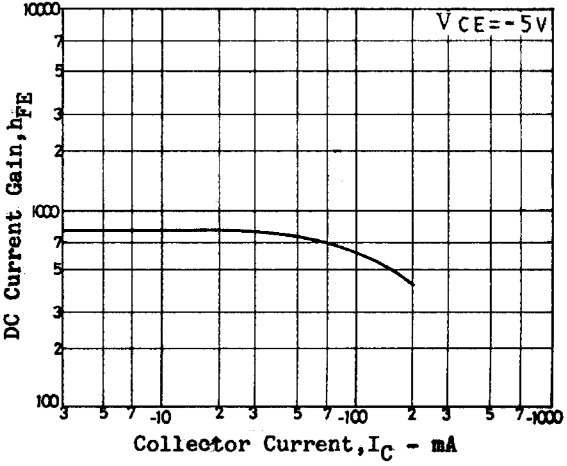
I_C - V_{CE}



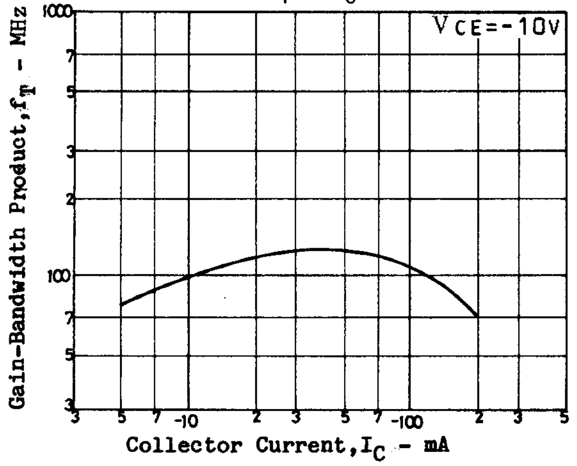
I_C - V_{BE}



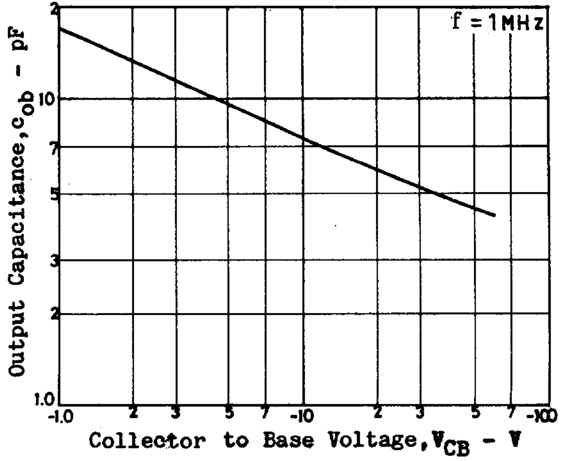
h_{FE} - I_C



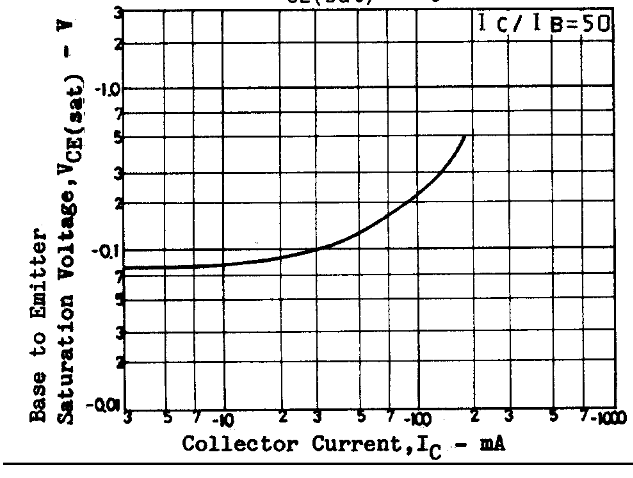
f_T - I_C



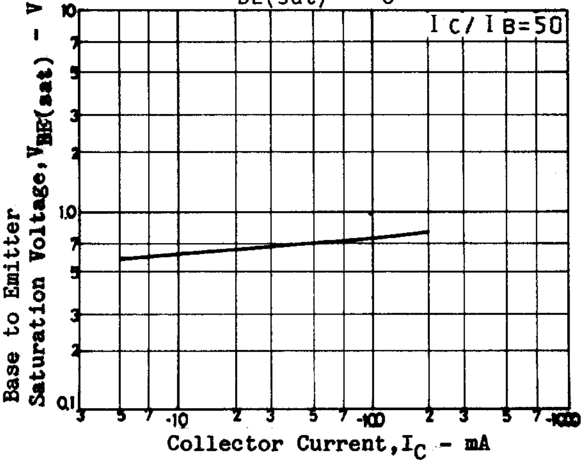
cob - V_{CB}



V_{CE}(sat) - I_C



V_{BE}(sat) - I_C



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