Ordering number:EN1853A

PNP Epitaxial Planar Silicon Transistor

2SA1434

High h_{FE}, Low-Frequency General-Purpose Amp Applications

Applications

· Low frequency general-purpose amplifiers, drivers, muting circuits.

Features

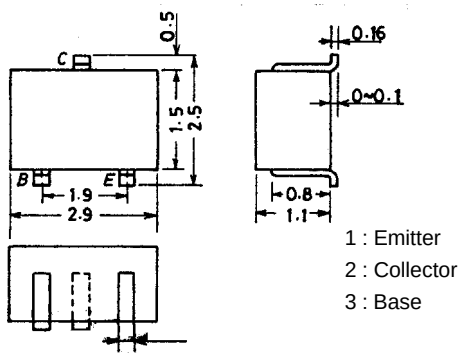
· Very small-sized package permitting 2SA1434-used sets to be made smaller, slimer.
· Adoption of FBET process.
· High DC current gain (h_{FE}=500 to 1200).
· Low collector-to-emitter saturation voltage ($V_{CE(sat)}$≤0.5V).
· High V_{EBO} (V_{EBO}≥15V).

Package Dimensions

unit:mm

2018A

[2SA1434]



1 : Emitter
2 : Collector
3 : Base

SANYO : CP

Specifications

Absolute Maximum Ratings at Ta = 25˚C

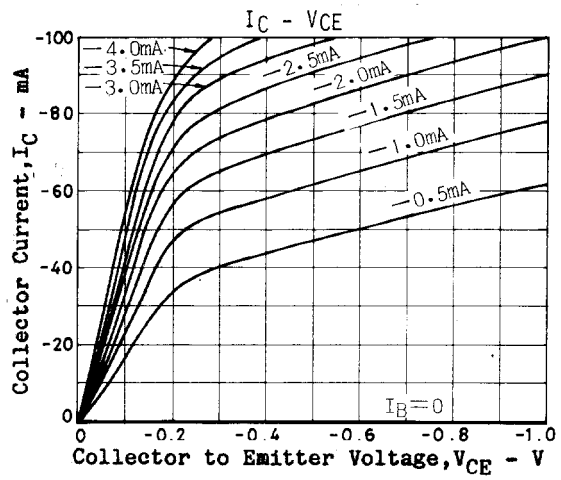
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–60	V
Collector-to-Emitter Voltage	V_{CEO}		–50	V
Emitter-to-Base Voltage	V_{EBO}		–15	V
Collector Current	I_C		–100	mA
Collector Current (Pulse)	I_{CP}		–200	mA
Collector Dissipation	P_C		200	mW
Junction Temperature	Tj		125	˚C
Storage Temperature	Tstg		–55 to +125	˚C

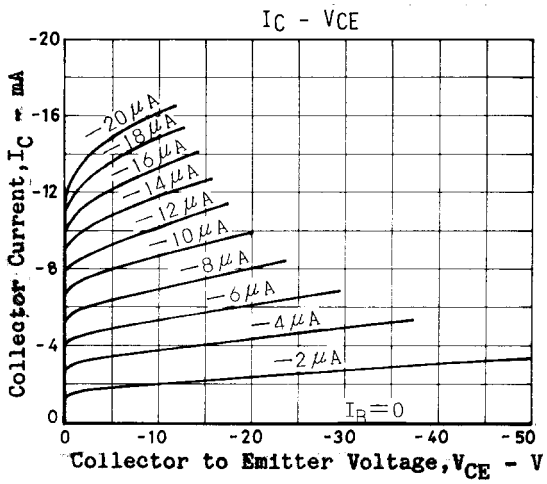
Electrical Characteristics at Ta = 25˚C

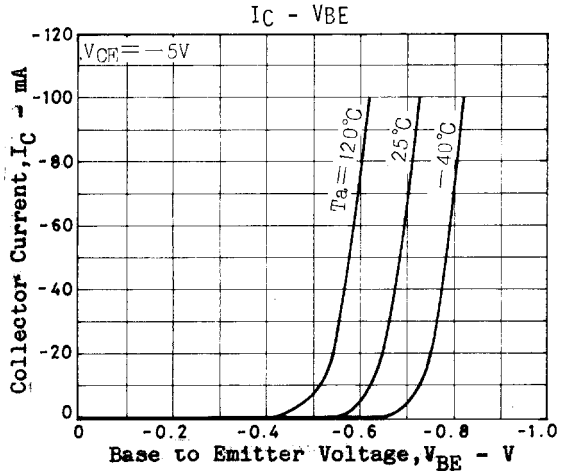
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=–40V, I_E=0			–0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–10V, I_C=0			–0.1	μA
DC Current Gain	h_{FE}	V_{CE}=–5V, I_C=–10mA	500	800	1200	
Gain-Bandwidth Product	f_T	V_{CE}=–10V, I_C=–10mA		100		MHz
Output Capacitance	C_{ob}	V_{CB}=–10V, f=1MHz		4.8		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–50mA, I_B=–1mA		–0.2	–0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=–10μA, I_B=–1mA		–0.8	–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}=∞	–50			V
Emitter-to-Base Breakdown Votage	$V_{(BR)EBO}$	I_E=–10μA, I_C=0	–15			V

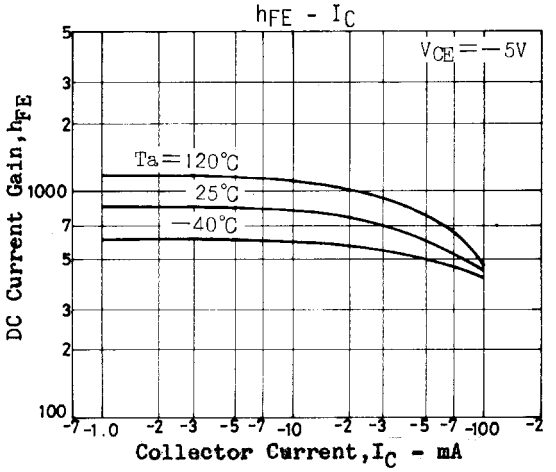
Marking : FL

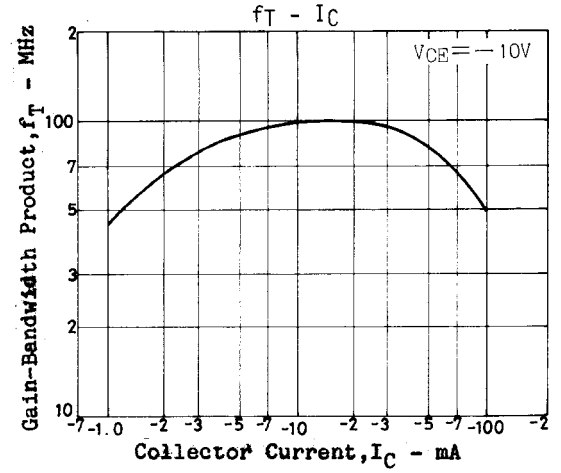
SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

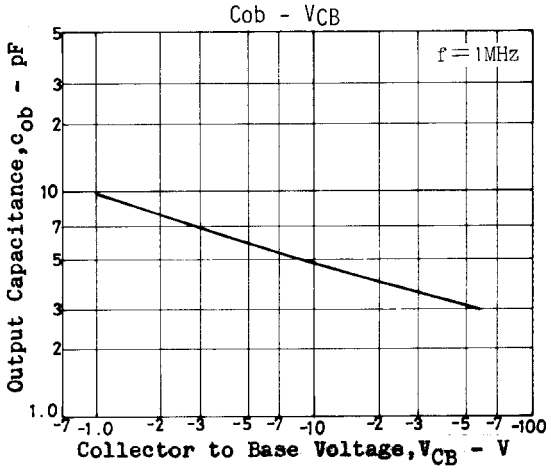

IC - VCE
Collector Current, IC - mA
Collector to Emitter Voltage, VCE - V
-4.0mA
-3.5mA
-3.0mA
-2.5mA
-2.0mA
-1.5mA
-1.0mA
-0.5mA
IB=0

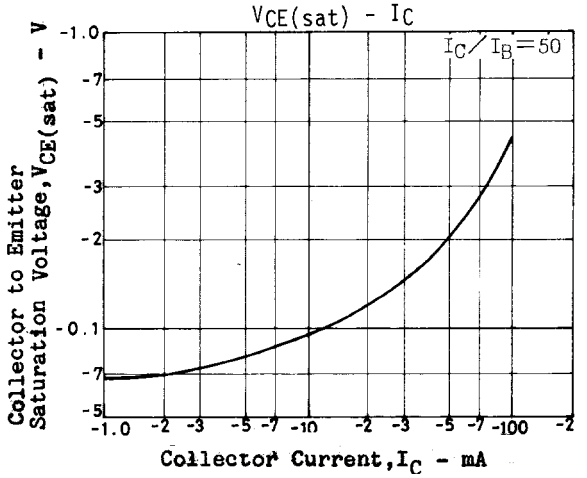

IC - VCE
Collector Current, IC - mA
Collector to Emitter Voltage, VCE - V
-20μA
-18μA
-16μA
-14μA
-12μA
-10μA
-8μA
-6μA
-4μA
-2μA
IB=0

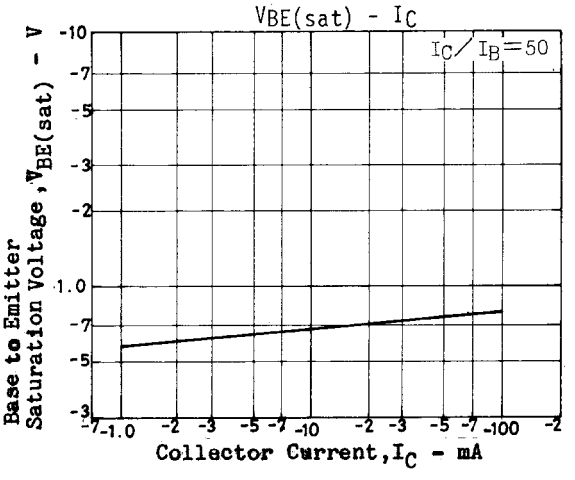

IC - VBE
VCE=-5V
Collector Current, IC - mA
Base to Emitter Voltage, VBE - V
Ta=120°C
25°C
-40°C


hFE - IC
VCE=-5V
DC Current Gain, hFE
Collector Current, IC - mA
Ta=120°C
25°C
-40°C


fT - IC
VCE=-10V
Gain-Bandwidth Product, fT - MHz
Collector Current, IC - mA


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


VCE(sat) - IC
IC/IB=50
Collector to Emitter Saturation Voltage, VCE(sat) - V
Collector Current, IC - mA


VBE(sat) - IC
IC/IB=50
Base to Emitter Saturation Voltage, VBE(sat) - V
Collector Current, IC - mA