Ordering number: EN 1048B

SANYO

No.1048B

2SA1252/2SC3134

PNP/NPN Epitaxial Planar Silicon Transistors

For AF Applications

Features

- High V_{EBO}.
- Wide ASO and high durability against breakdown.

( ) : 2SA1252

Absolute Maximum Ratings at Ta=25°C

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	(-)150	mA
Collector Current(Pulse)	I_{CP}	(-)300	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature	T_{stg}	-55 to +125	°C

Electrical Characteristics at Ta=25°C

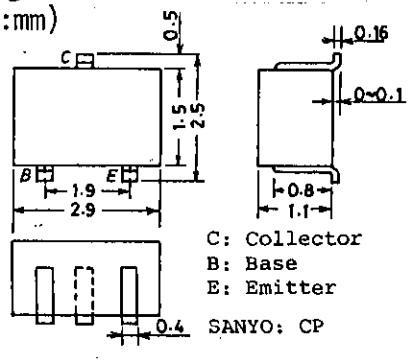
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)10V, I_C=0			(-)0.1	μA
DC Current Gain	h_{FE}	V_{CE}=(-)6V, I_C=(-)1mA	90*		560*	
Gain-Bandwidth Product	f_T	V_{CE}=(-)6V, I_C=(-)1mA		100		MHz
Output Capacitance	C_{ob}	V_{CB}=(-)6V, f=1MHz		(3.5) 2.2		pF
C to E Saturation Voltage	$V_{CE(sat)}$	I_C=(-)50mA, I_B=(-)5mA			(-)0.5	V
C to B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0	(-)60			V
C to E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)50			V
E to B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0	(-)15			V

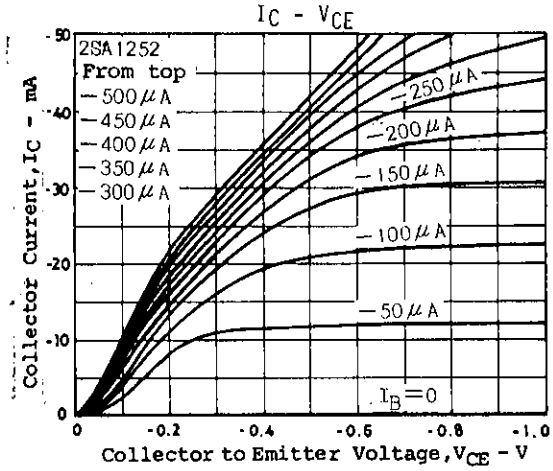
*The 2SA1252/2SC3134 are classified as follows according to h_{FE} at 1mA:

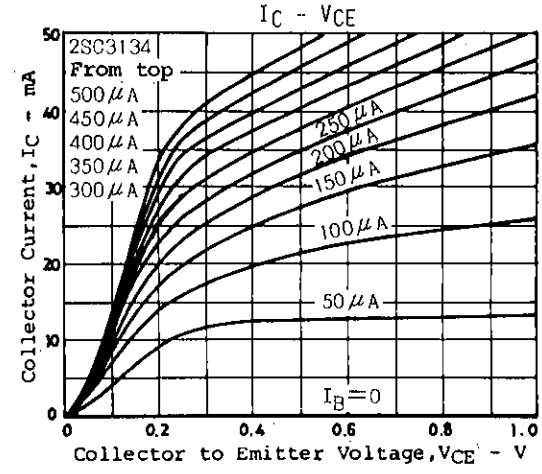
90	4	180	135	5	270	200	6	400	300	7	600

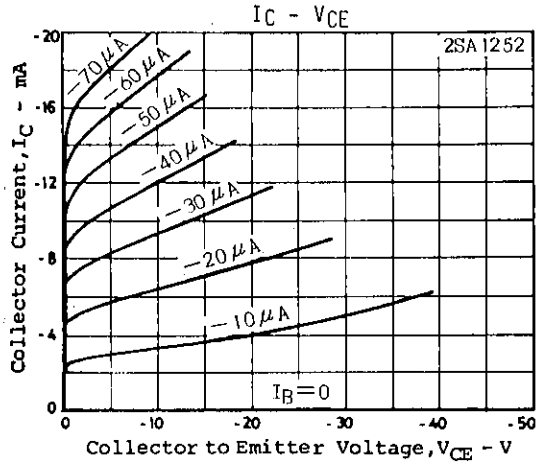
Marking 2SA1252 : D
2SC3134 : H
h_{FE} rank : 4,5,6,7

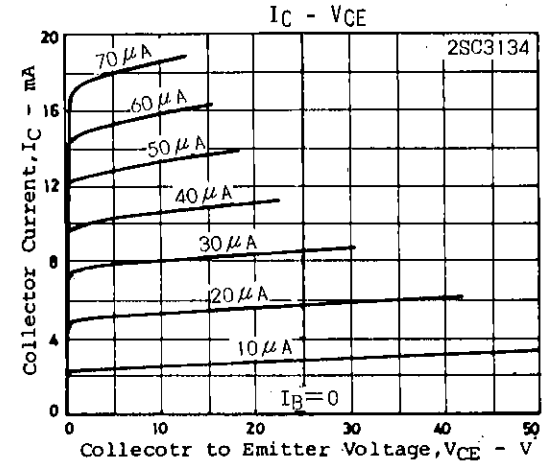
Package Dimensions 2018A
(unit:mm)

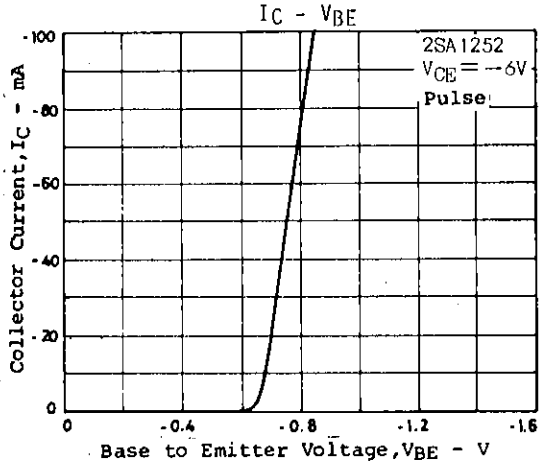


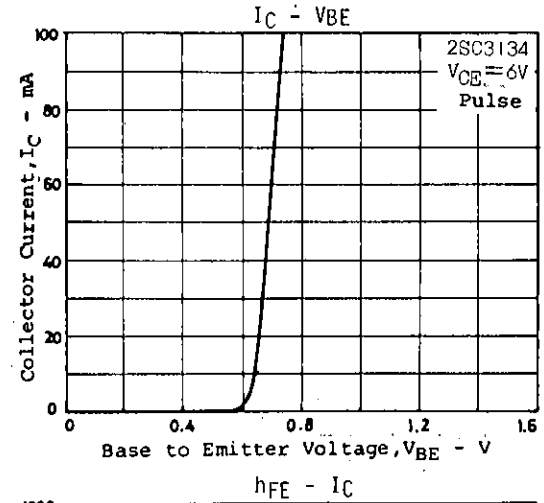

I_C - V_{CE}
2SA1252
From top
−500μA
−450μA
−400μA
−350μA
−300μA
−250μA
−200μA
−150μA
−100μA
−50μA
I_B=0
Collector Current, I_C - mA
Collector to Emitter Voltage, V_{CE} - V

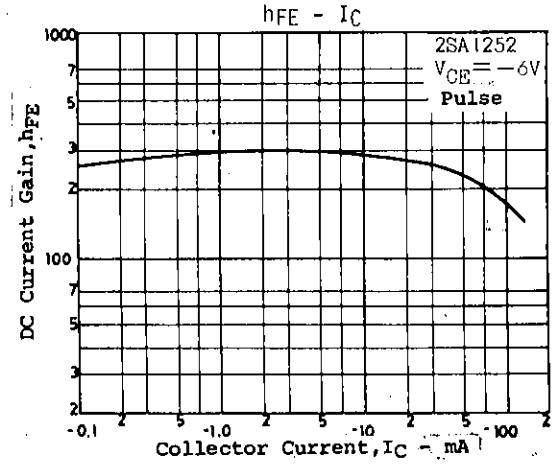

I_C - V_{CE}
2SC3134
From top
500μA
450μA
400μA
350μA
300μA
250μA
200μA
150μA
100μA
50μA
I_B=0
Collector Current, I_C - mA
Collector to Emitter Voltage, V_{CE} - V

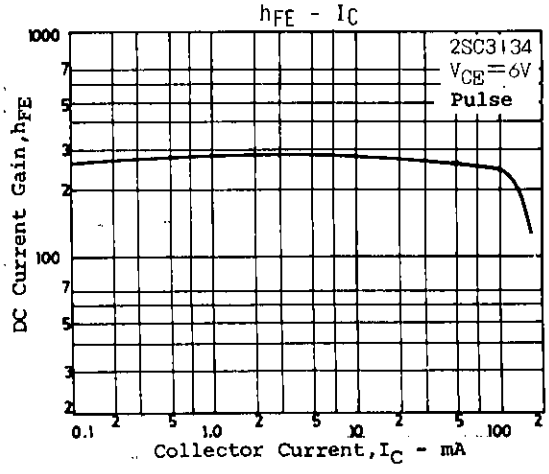

I_C - V_{CE}
2SA1252
−70μA
−60μA
−50μA
−40μA
−30μA
−20μA
−10μA
I_B=0
Collector Current, I_C - mA
Collector to Emitter Voltage, V_{CE} - V

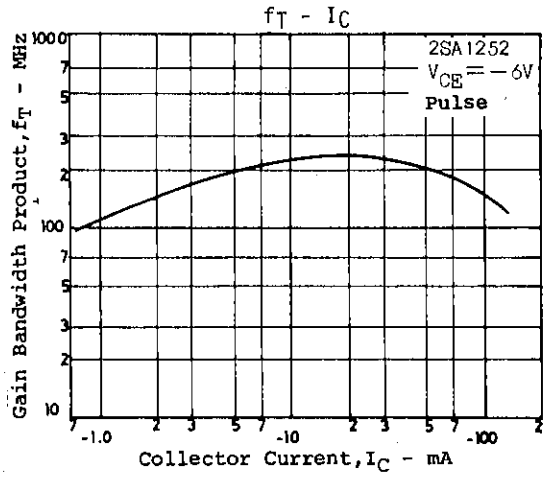

I_C - V_{CE}
2SC3134
70μA
60μA
50μA
40μA
30μA
20μA
10μA
I_B=0
Collector Current, I_C - mA
Collecotr to Emitter Voltage, V_{CE} - V

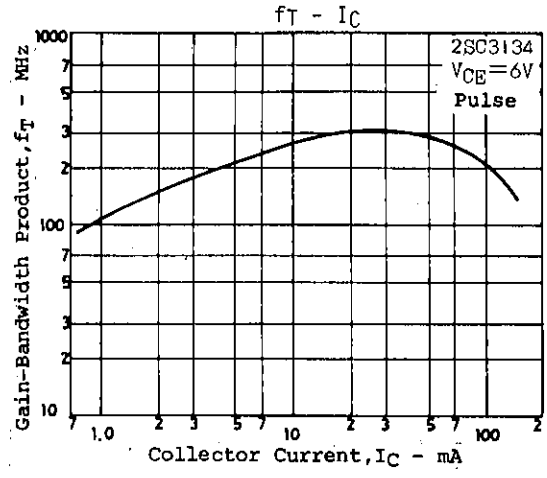

I_C - V_{BE}
2SA1252
V_{CE}=−6V
Pulse
Collector Current, I_C - mA
Base to Emitter Voltage, V_{BE} - V

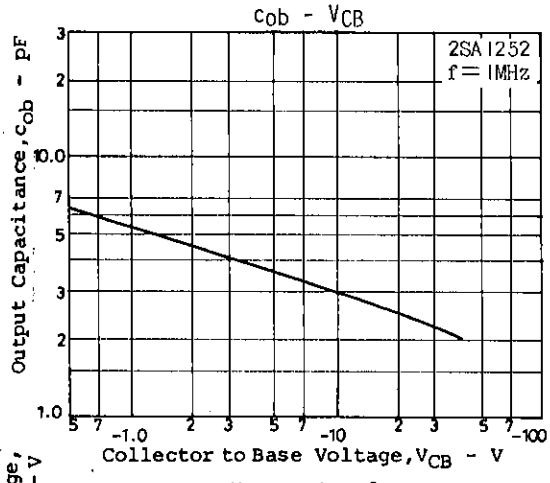

I_C - V_{BE}
2SC3134
V_{CE}=6V
Pulse
Collector Current, I_C - mA
Base to Emitter Voltage, V_{BE} - V

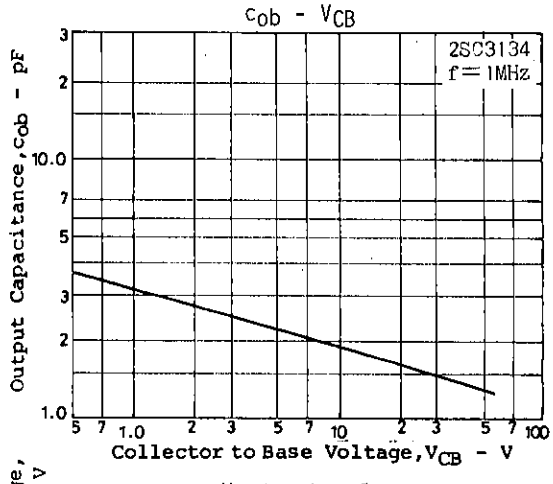

h_{FE} - I_C
2SA1252
V_{CE}=−6V
Pulse
DC Current Gain, h_{FE}
Collector Current, I_C - mA

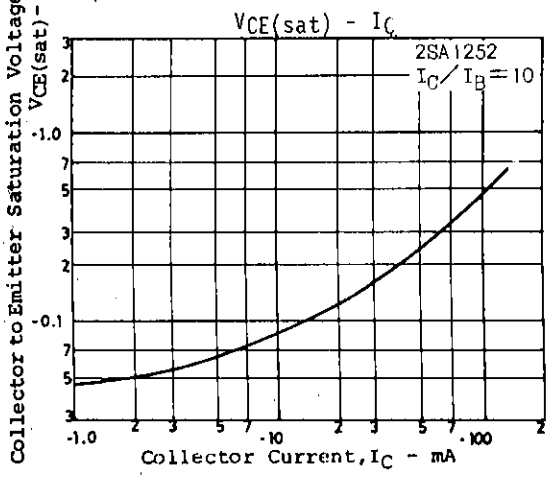

h_{FE} - I_C
2SC3134
V_{CE}=6V
Pulse
DC Current Gain, h_{FE}
Collector Current, I_C - mA

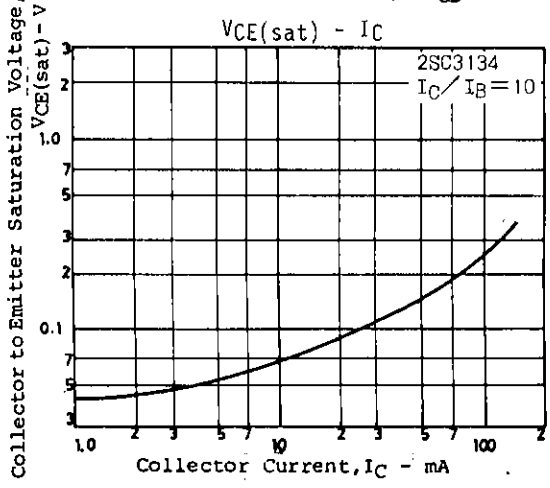

fT - IC
2SA1252
VCE=−6V
Pulse
Gain Bandwidth Product, fT - MHz
Collector Current, IC - mA

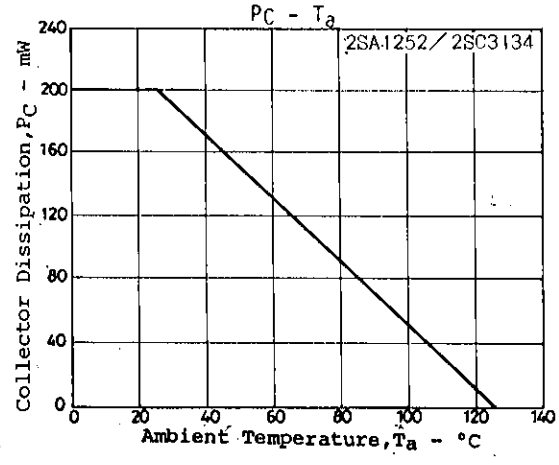

fT - IC
2SC3134
VCE=6V
Pulse
Gain-Bandwidth Product, fT - MHz
Collector Current, IC - mA


Cob - VCB
2SA1252
f=1MHz
Output Capacitance, Cob - pF
Collector to Base Voltage, VCB - V


Cob - VCB
2SC3134
f=1MHz
Output Capacitance, Cob - pF
Collector to Base Voltage, VCB - V


VCE(sat) - IC
2SA1252
IC/IB=10
Collector to Emitter Saturation Voltage, VCE(sat) - V
Collector Current, IC - mA


VCE(sat) - IC
2SC3134
IC/IB=10
Collector to Emitter Saturation Voltage, VCE(sat) - V
Collector Current, IC - mA


PC - Ta
2SA1252/2SC3134
Collector Dissipation, PC - mW
Ambient Temperature, Ta - °C

■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:
① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.