



No.2510A

2SA1592/2SC4134

PNP/NPN Epitaxial Planar Silicon Transistors

High-Voltage Switching Applications

Applications

- Power supplies, relay drivers, lamp drivers

Features

- Adoption of FBET, MBIT processes
- High breakdown voltage and large current capacity
- Fast switching speed
- Small and slim package permitting 2SA1592/2SC4134-applied sets to be made more compact

(): 2SA1592

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)120	V
Collector to Emitter Voltage	V _{CEO}	(-)100	V
Emitter to Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)1	A
Collector Current(Pulse)	I _{CP}	(-)2	A
Collector Dissipation	P _C	0.8	W
		10	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CBO}	V _{CB} =(-)100V, I _E =0			(-)100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(-)100	nA
DC Current Gain	h _{FE}	V _{CE} =(-)5V, I _C =(-)100mA	100*		400*	
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)100mA		120		MHz
Output Capacitance	c _{ob}	V _{CB} =(-)10V, f=1MHz		(13)		pF
				8.5		

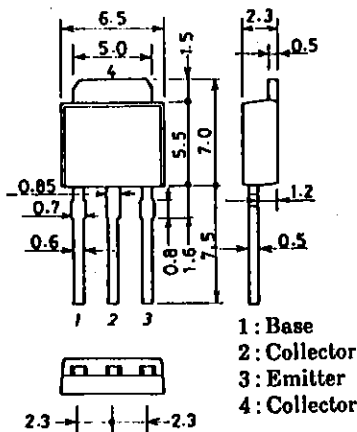
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*: The 2SA1592/2SC4134 are classified by 100mA h_{FE} as follows:

100	R	200	140	S	280	200	T	400
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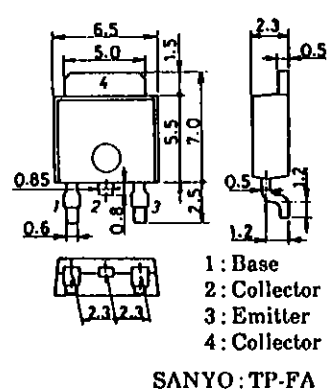
Package Dimensions 2045B

(unit:mm)



Package Dimensions 2044B

(unit:mm)



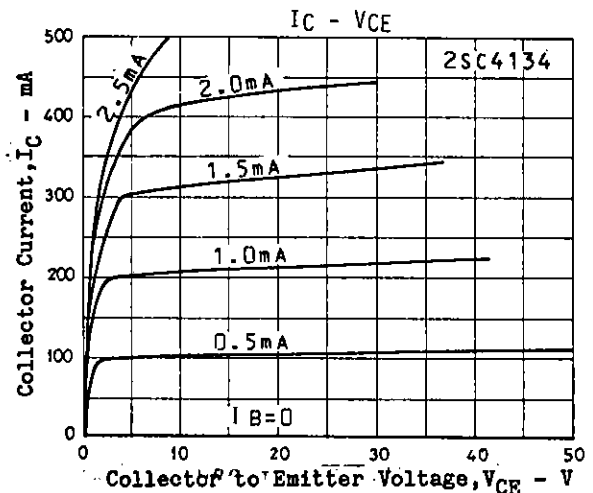
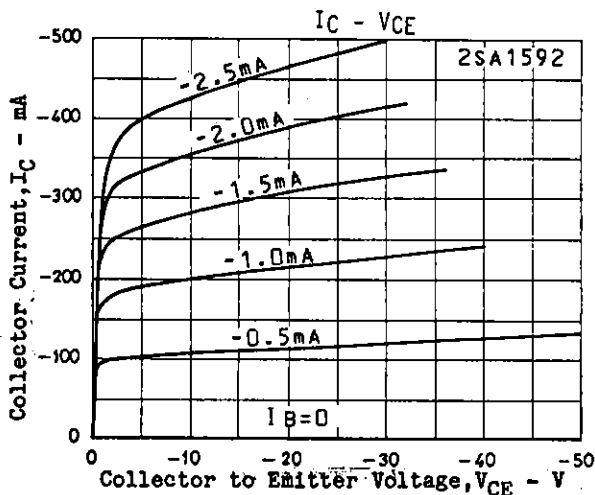
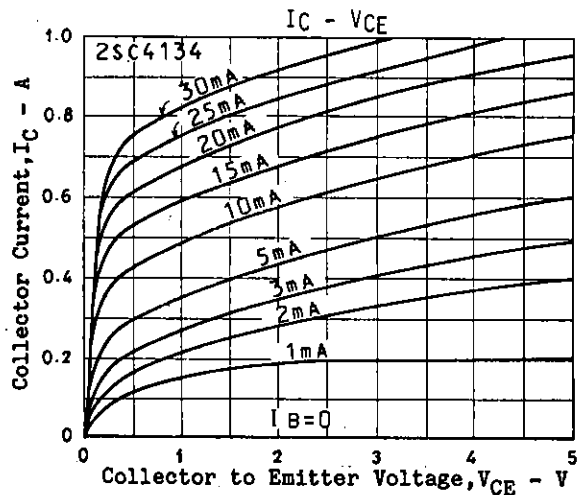
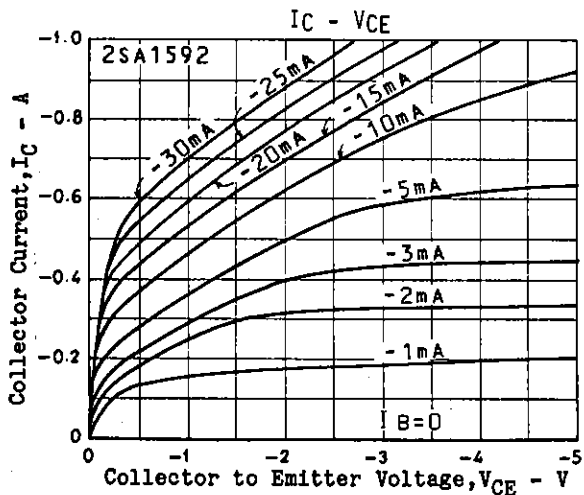
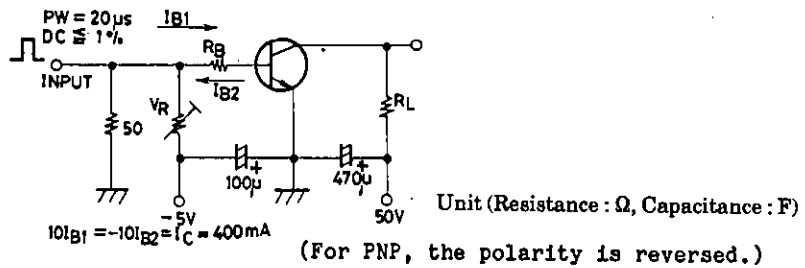
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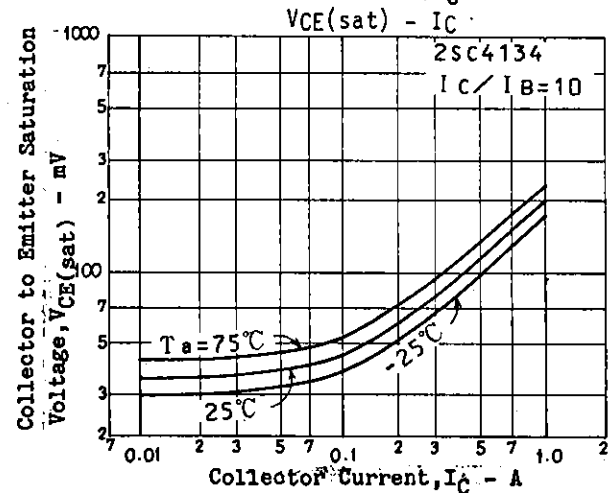
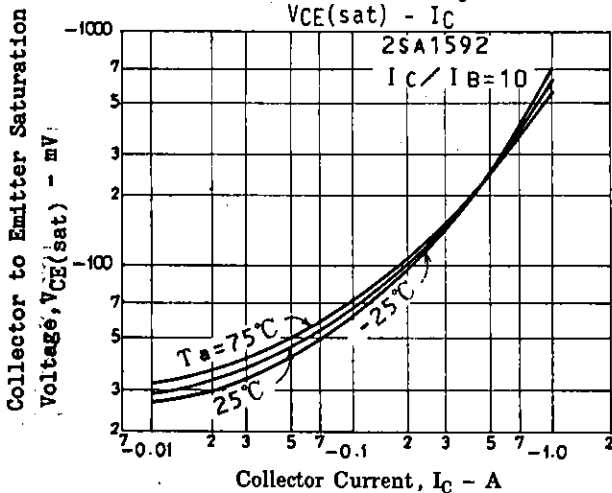
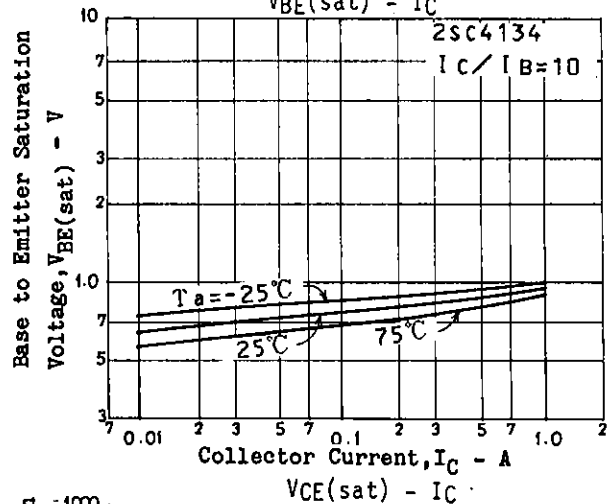
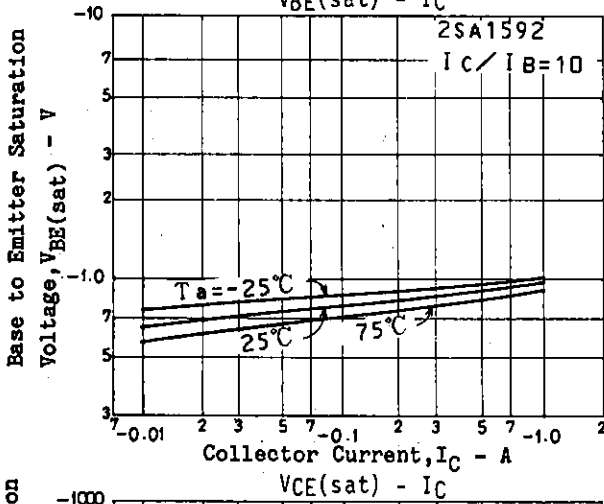
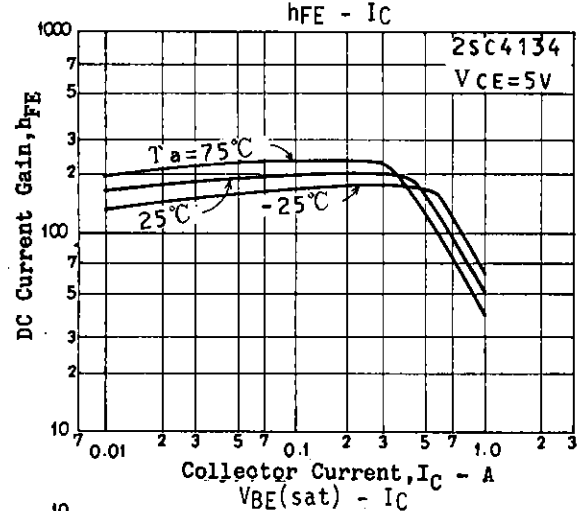
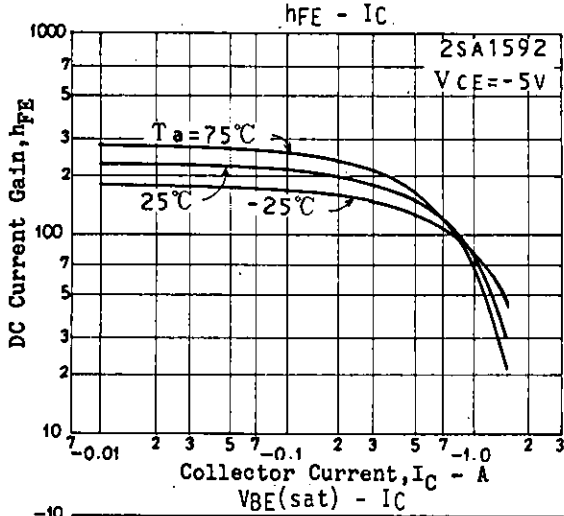
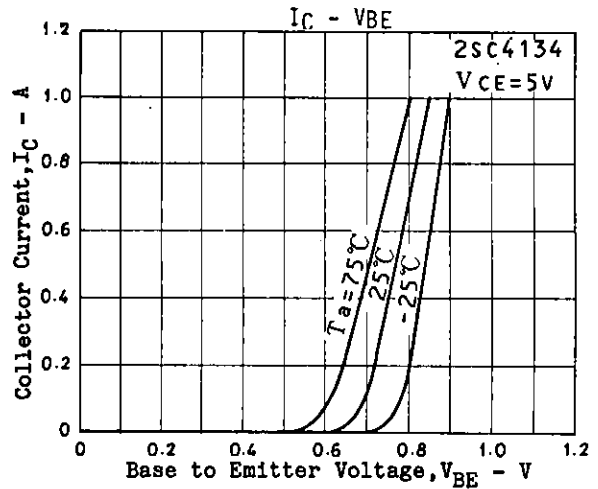
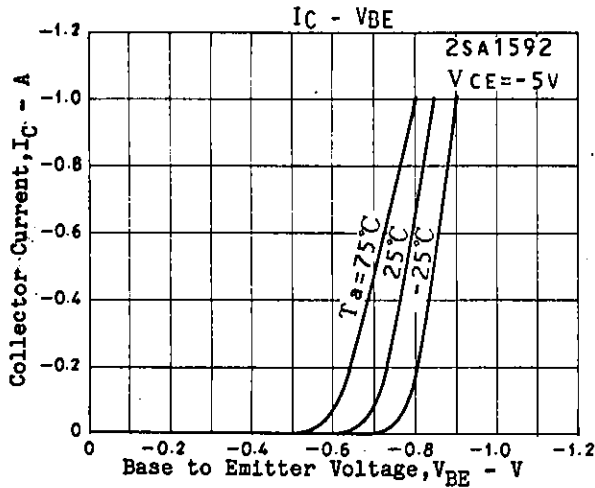
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			min	typ	max	unit
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)400mA, I_B = (-)40mA$		(-0.2)	(-0.6)	V
				0.1	0.4	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)400mA, I_B = (-)40mA$		(-)0.85	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$		(-)120		V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$		(-)100		V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$		(-)6		V
Turn-on Time	t_{on}	See specified Test Circuit.		(80)		ns
				80		ns
Storage Time	t_{stg}			(700)		ns
				850		ns
Fall Time	t_f			(40)		ns
				50		ns

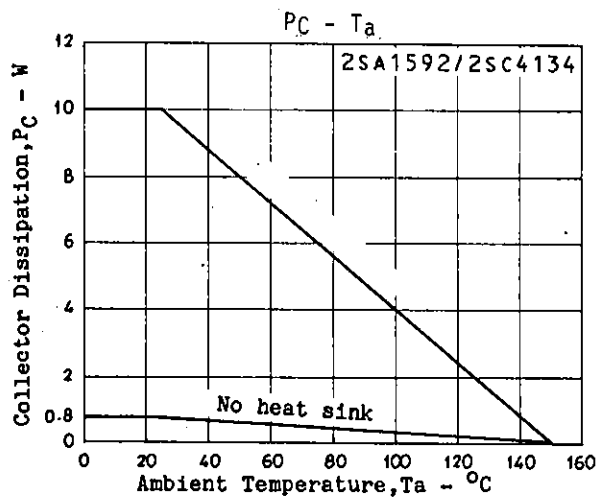
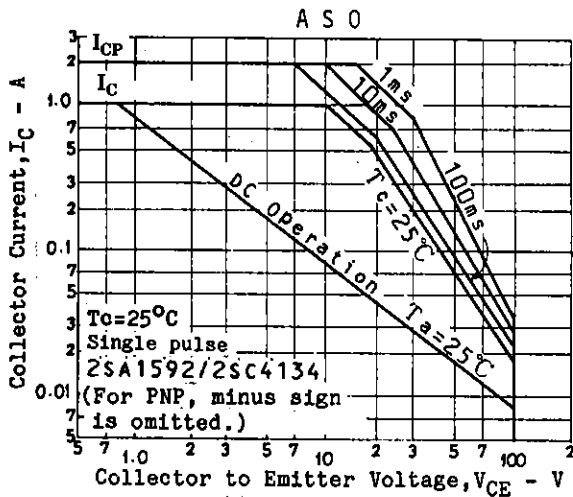
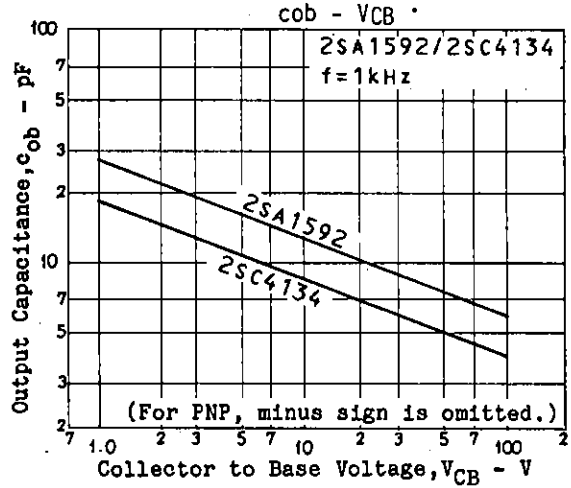
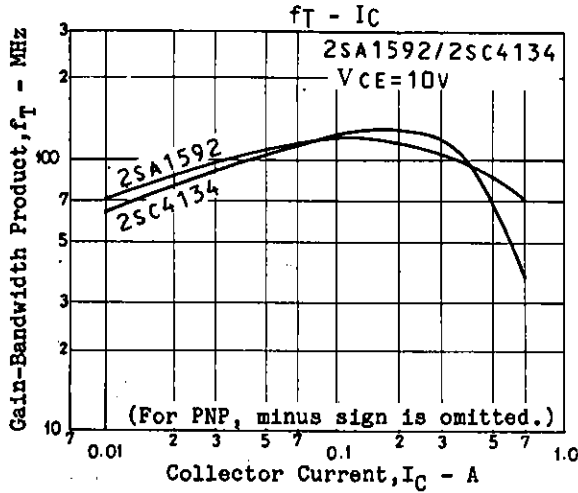
Switching Time Test Circuit



2SA1592/2SC4134



2SA1592/2SC4134



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