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|--------------|----------|---|
| SANYO | 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 _{CBO} | (-)120 | V |
| Collector to Emitter Voltage | V _{CEO} | (-)100 | V |
| Emitter to Base Voltage | V _{EB0} | (-)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 | | |

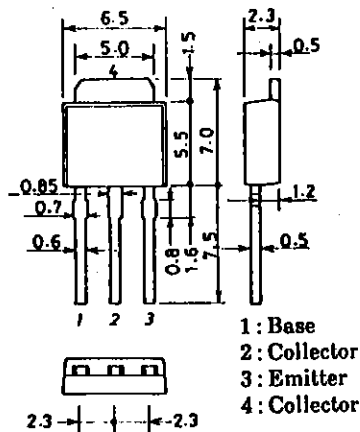
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*: The 2SA1592/2SC4134 are classified by 100mA h_{FE} as follows:

| | | | | | | | | |
|-----|---|-----|-----|---|-----|-----|---|-----|
| 100 | R | 200 | 140 | S | 280 | 200 | T | 400 |
|-----|---|-----|-----|---|-----|-----|---|-----|

Package Dimensions 2045B

(unit:mm)

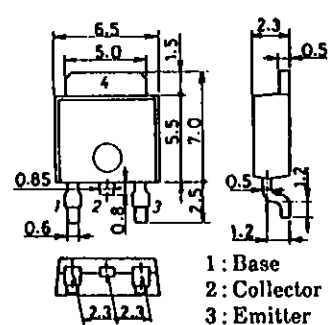


- 1: Base
- 2: Collector
- 3: Emitter
- 4: Collector

SANYO: TP

Package Dimensions 2044B

(unit:mm)



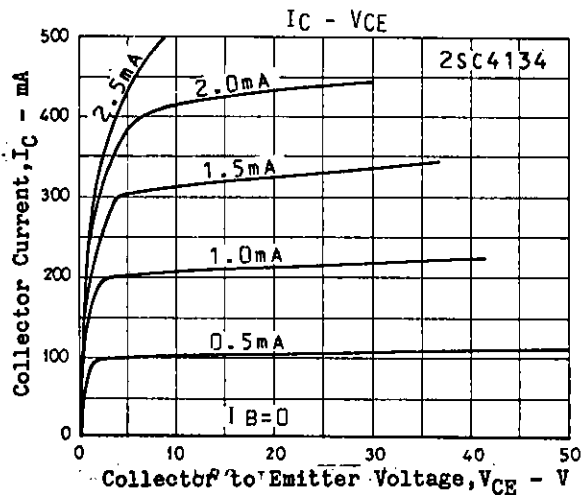
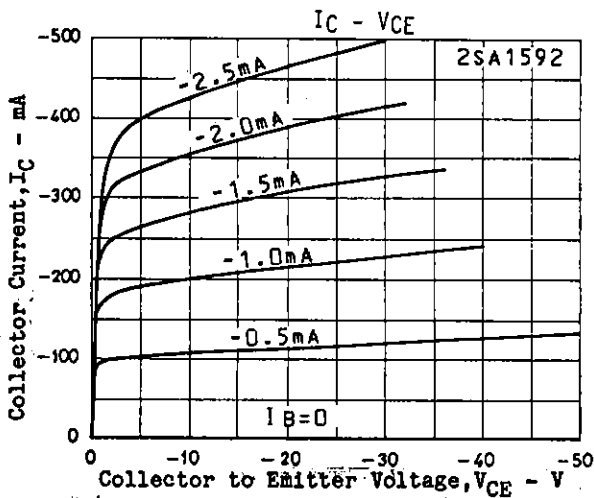
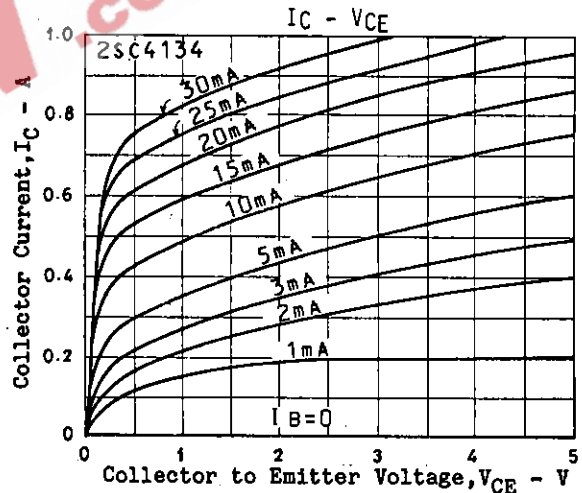
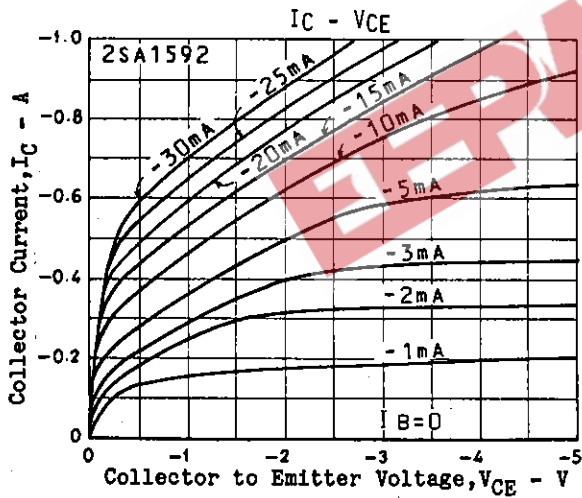
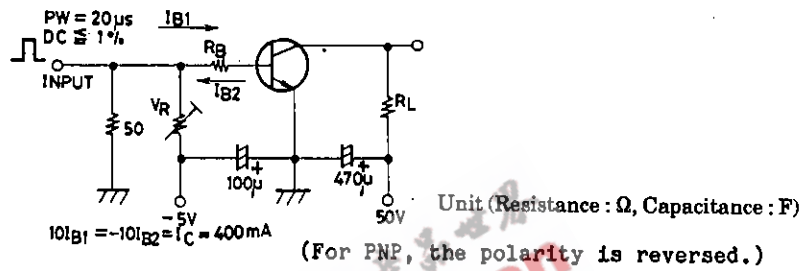
- 1: Base
- 2: Collector
- 3: Emitter
- 4: Collector

SANYO: TP-FA

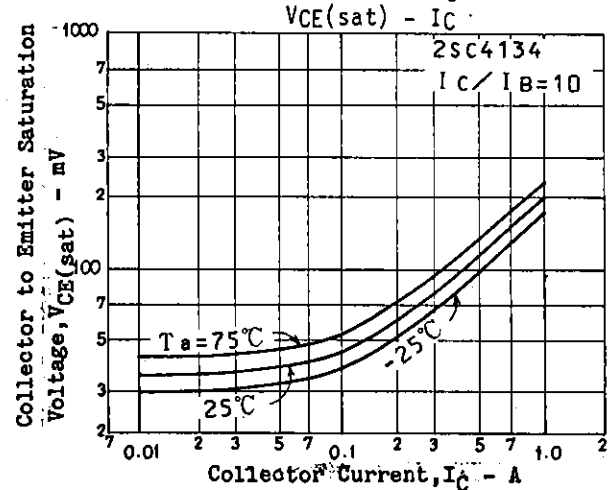
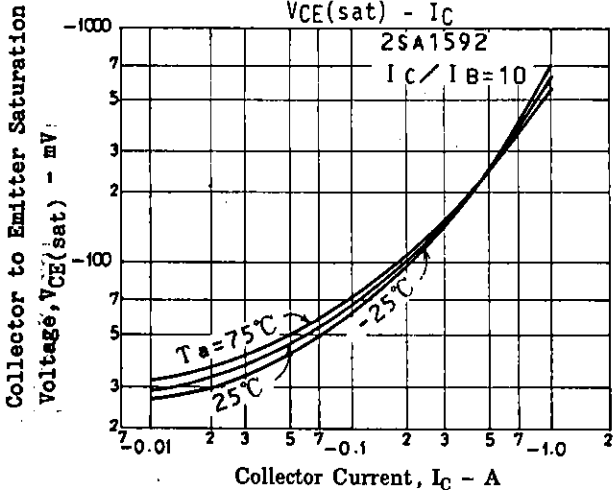
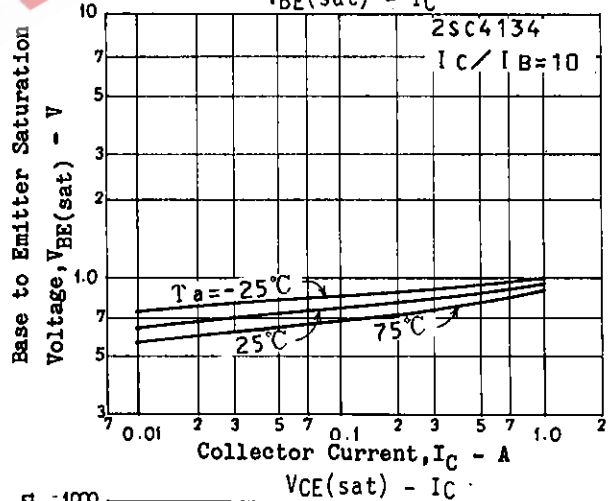
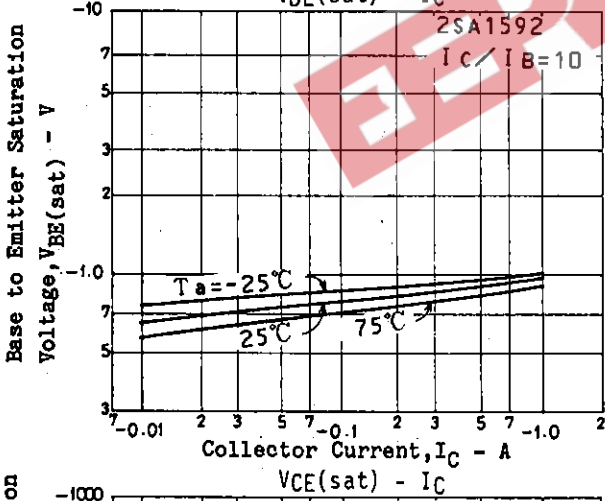
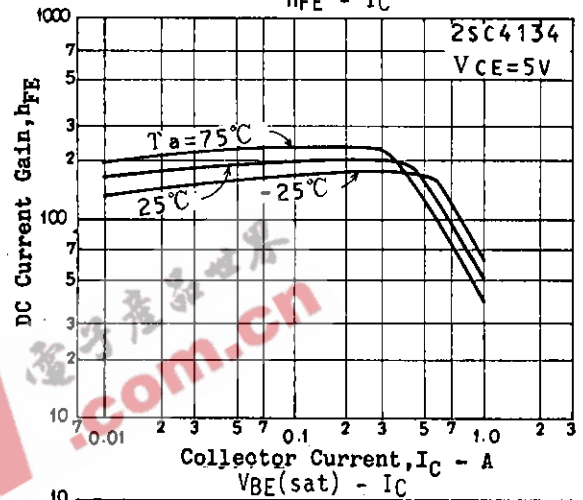
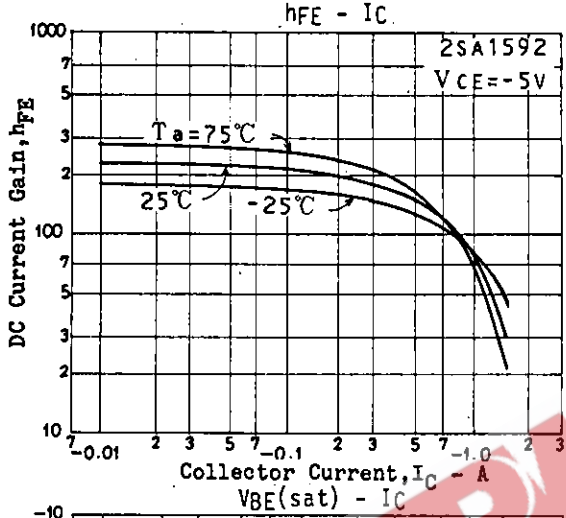
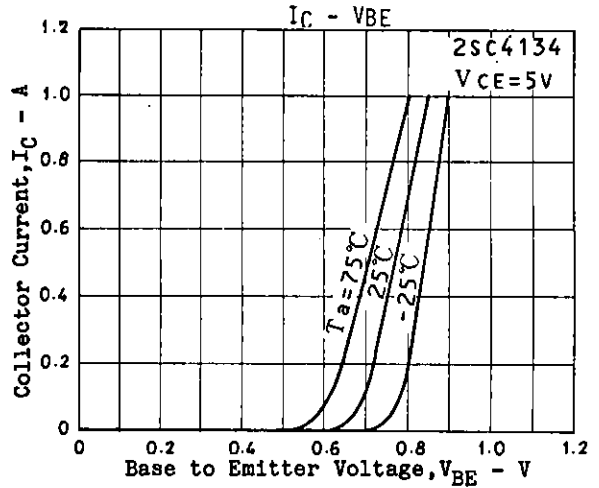
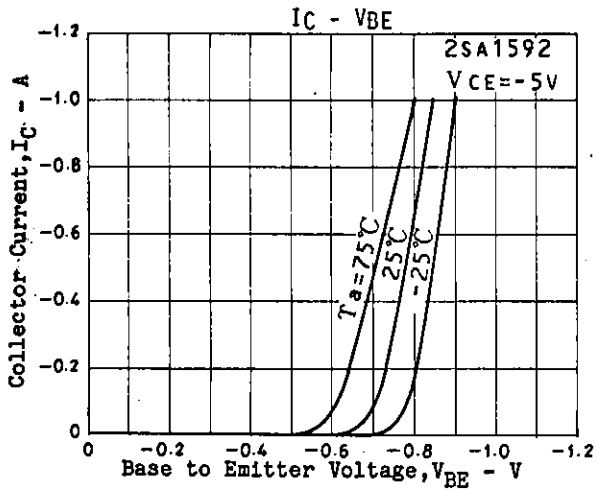
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| | | | min | typ | max | unit |
|------------------------|---------------|---------------------------------|--------|--------|--------|------|
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = (-)400mA, I_B = (-)40mA$ | | (-0.2) | (-0.6) | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C = (-)400mA, I_B = (-)40mA$ | | (-)0.1 | (-)0.4 | 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 |

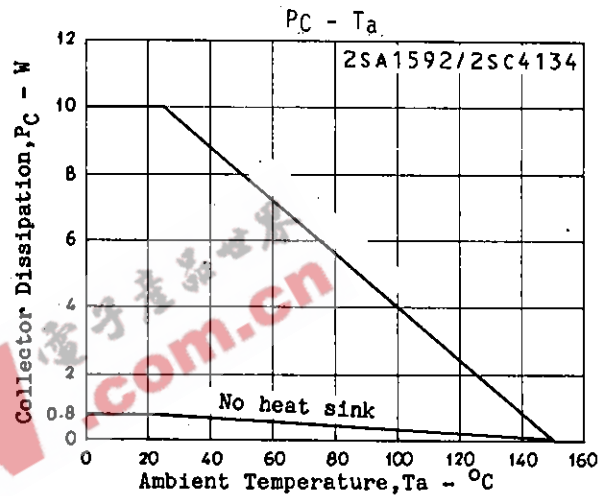
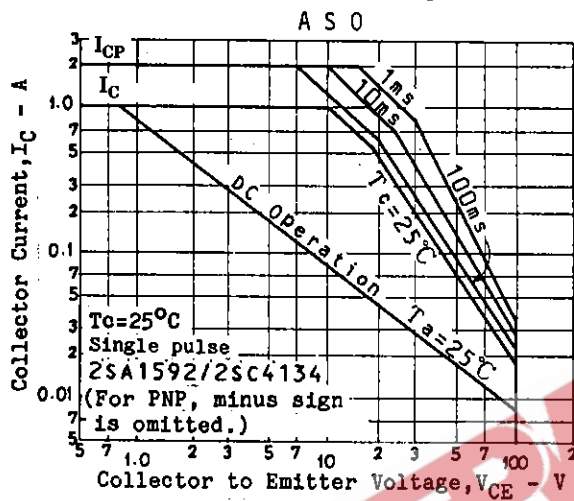
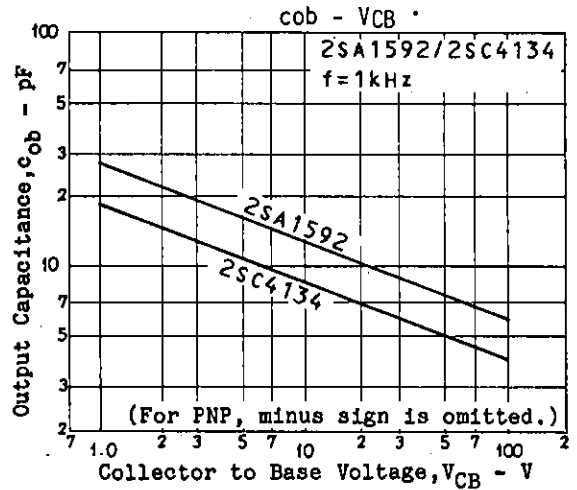
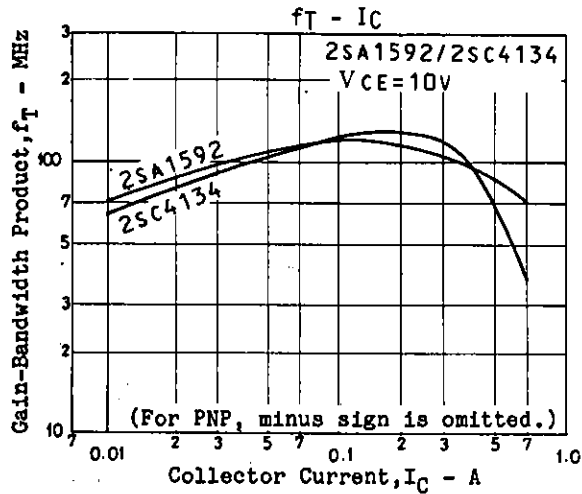
Switching Time Test Circuit



2SA1592/2SC4134



2SA1592/2SC4134



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