



SANYO Semiconductors

DATA SHEET

2SA2062 / 2SC5774

 PNP Epitaxial Planar Silicon Transistor
 NPN Triple Diffused Planar Silicon Transistor
140V / 10A, AF70W

Output Applications

Features

- Large current capacitance.
- Wide ASO and high durability against breakdown.
- Adoption of MBIT process.

Specifications Note*() : 2SA2062

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|------------------|----------------------|-------------|------|
| Collector-to-Base Voltage | V _{CB0} | | (-)160 | V |
| Collector-to-Emitter Voltage | V _{CEO} | | (-)140 | V |
| Emitter-to-Base Voltage | V _{EBO} | | (-)6 | V |
| Collector Current | I _C | | (-)10 | A |
| Collector Current (Pulse) | I _{CP} | | (-)20 | A |
| Collector Dissipation | P _C | | 2.5 | W |
| | | T _C =25°C | 110 | W |
| Junction Temperature | T _J | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|----------------------|--|---------|------------|--------|------|
| | | | min | typ | max | |
| Collector Cutoff Current | I _{CB0} | V _{CB} =(-)160V, I _E =0 | | | (-)0.1 | mA |
| Emitter Cutoff Current | I _{EBO} | V _{EB} =(-)4V, I _C =0 | | | (-)0.1 | mA |
| DC Current Gain | h _{FE} (1) | V _{CE} =(-)5V, I _C =(-)1A | 60 | | 160 | |
| | h _{FE} (2) | V _{CE} =(-)5V, I _C =(-)5A | 35 | | | |
| Gain-Bandwidth Product | f _T | V _{CE} =(-)5V, I _C =(-)1A | | (10)15 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =(-)10V, f=1MHz | | (280)140 | | pF |
| Base-to-Emitter Voltage | V _{BE} | V _{CE} =(-)5V, I _C =(-)5A | | | 1.5 | V |
| Collector-to-Emitter Saturation Voltage | V _{CE(sat)} | I _C =(-)5A, I _B =(-)0.5A | | (-0.3)0.2 | (-)2.0 | V |
| Collector-to-Base Breakdown Voltage | V _{(BR)CBO} | I _C =(-)5mA, I _E =0 | (-)160 | | | V |
| Collector-to-Emitter Breakdown Voltage | V _{(BR)CEO} | I _C =(-)50mA, R _{BE} =∞ | (-)140 | | | V |
| Emitter-to-Base Breakdown Voltage | V _{(BR)EBO} | I _E =(-)5mA, I _C =0 | (-)6 | | | V |
| Turn-On Time | t _{on} | See specified test circuit. | | (0.45)0.56 | | μs |
| Storage Time | t _{stg} | See specified test circuit. | | (1.75)3.3 | | μs |
| Fall Time | t _f | See specified test circuit. | | (0.25)0.4 | | μs |

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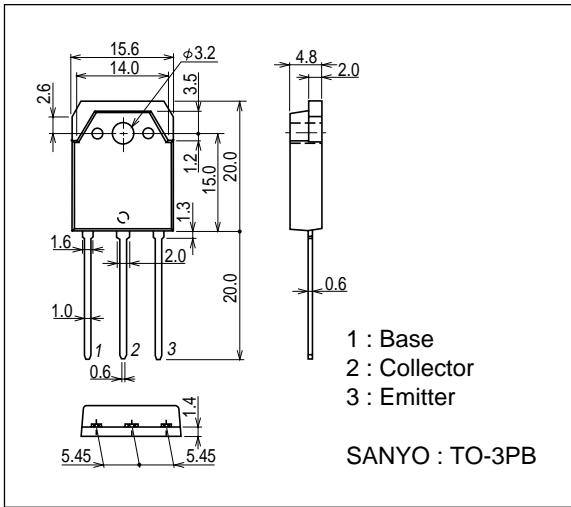
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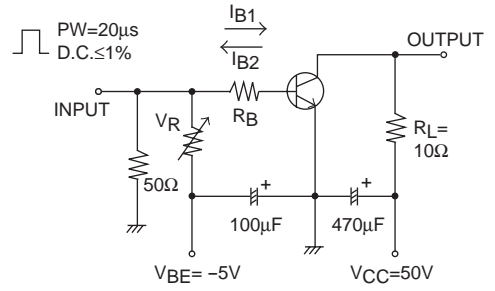
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Package Dimensions

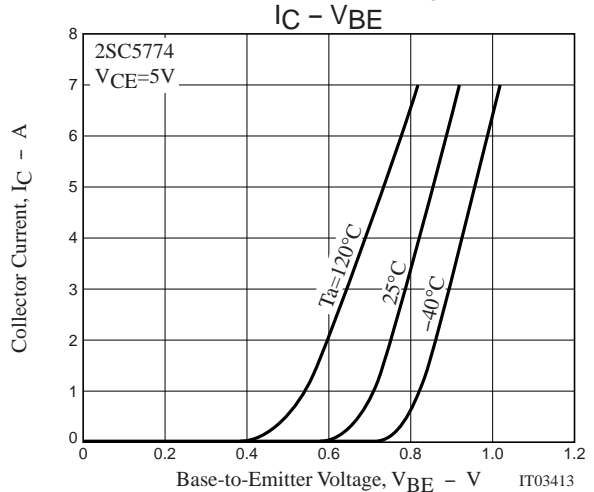
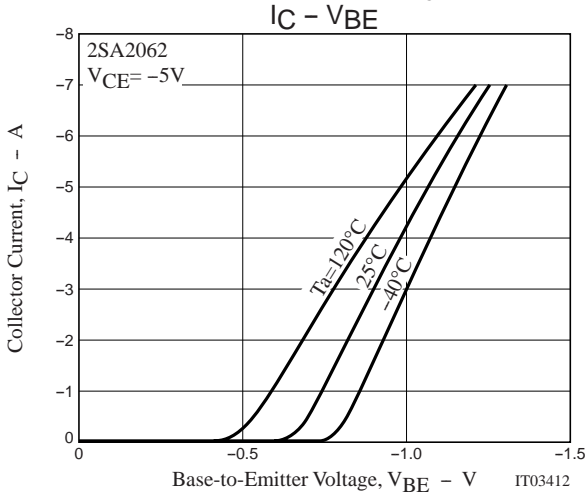
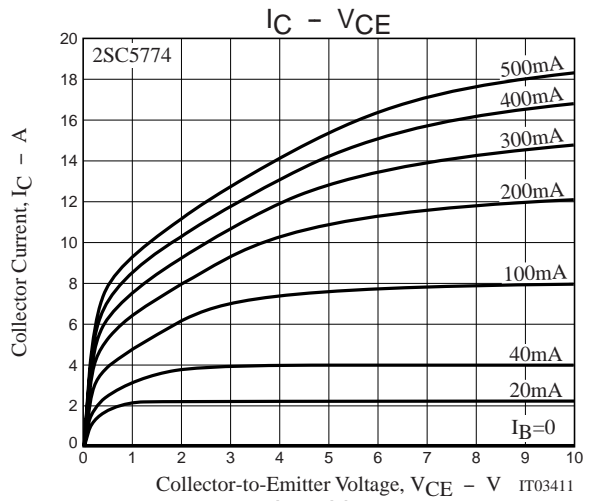
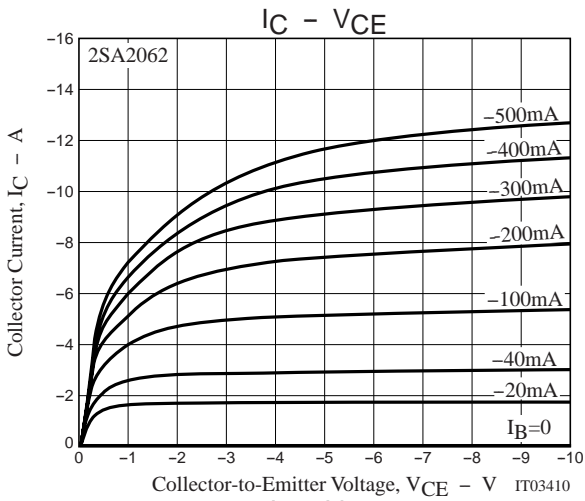
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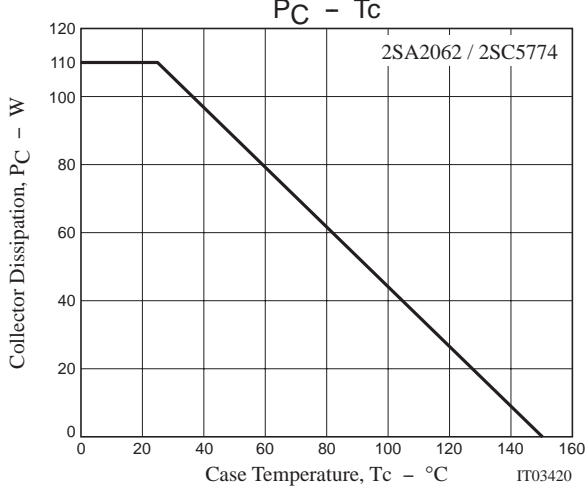
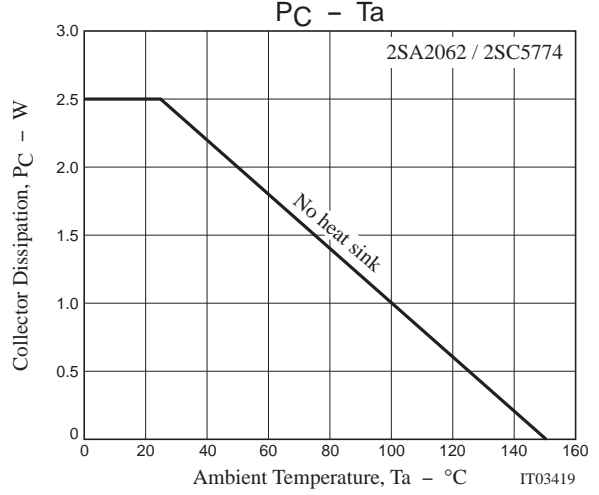
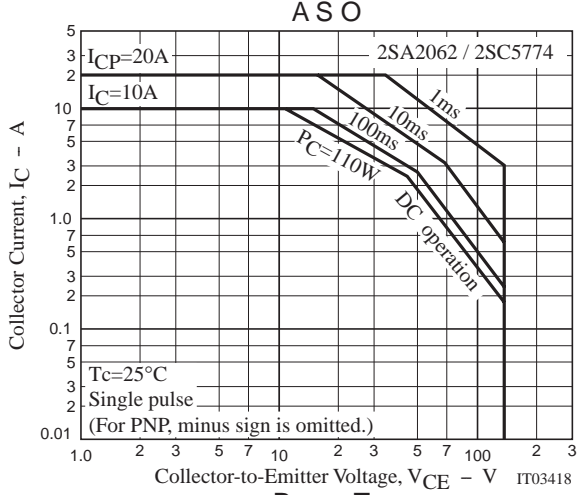
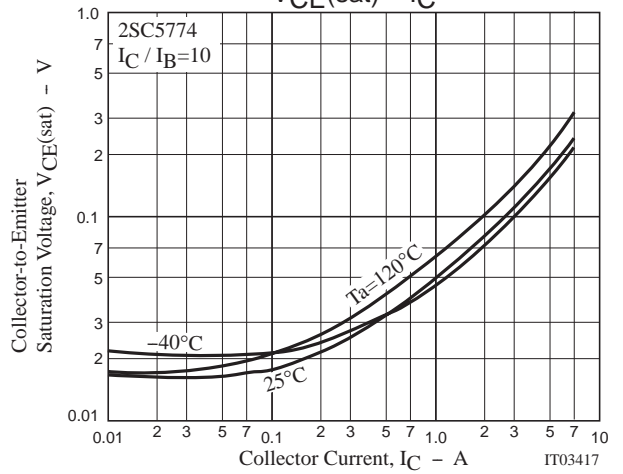
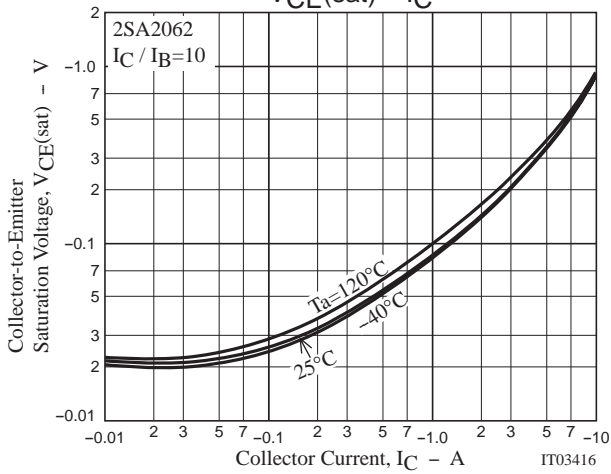
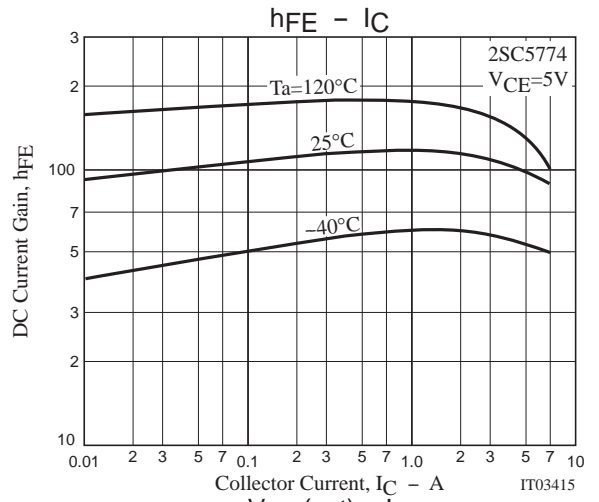
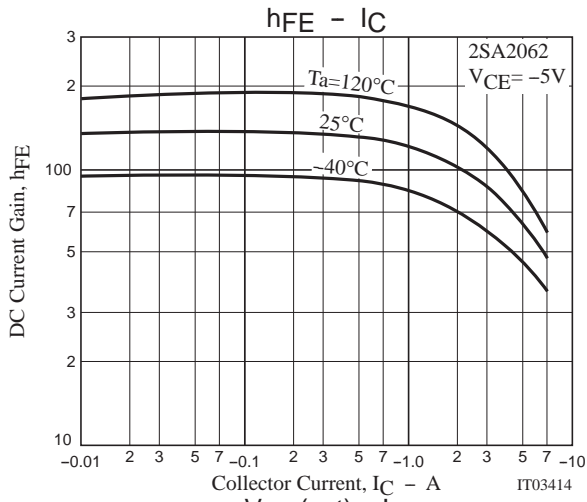
Switching Time Test Circuit



$I_C = 10I_{B1} = -10I_{B2} = 5A$
For PNP, the polarity is reversed.



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