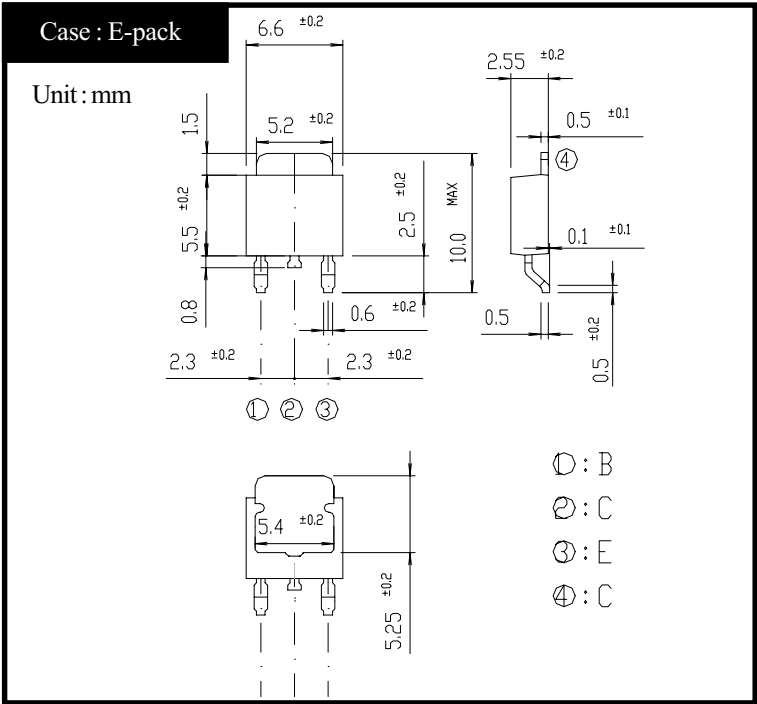


2SA1796

(TE7T4)

-7A PNP

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings

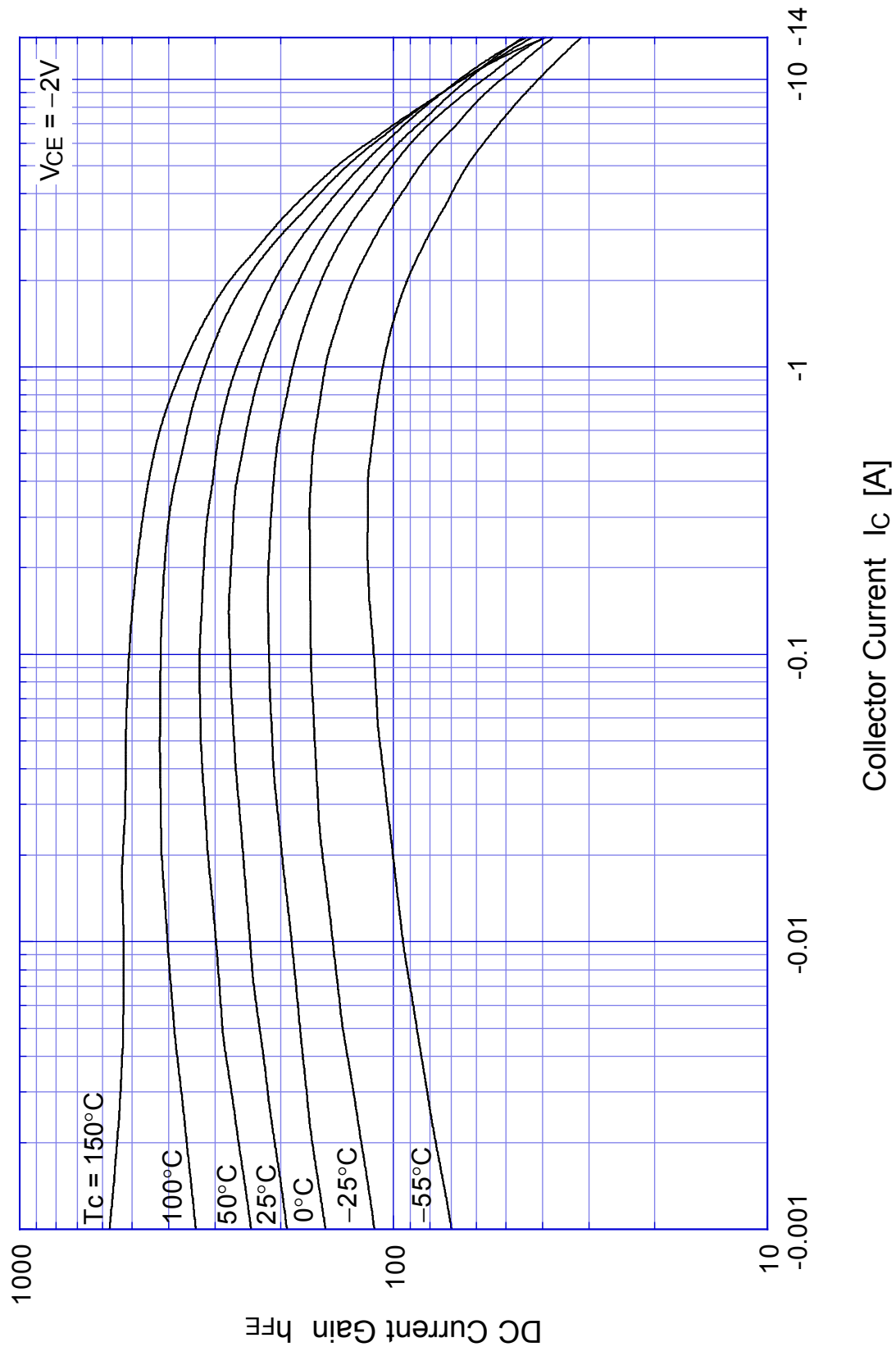
| Item                         | Symbol           | Conditions           | Ratings | Unit |
|------------------------------|------------------|----------------------|---------|------|
| Storage Temperature          | T <sub>stg</sub> |                      | -55~150 | ℃    |
| Junction Temperature         | T <sub>j</sub>   |                      | 150     | ℃    |
| Collector to Base Voltage    | V <sub>CBO</sub> |                      | -60     | V    |
| Collector to Emitter Voltage | V <sub>CEO</sub> |                      | -40     | V    |
| Emitter to Base Voltage      | V <sub>EBO</sub> |                      | -7      | V    |
| Collector Current DC         | I <sub>C</sub>   |                      | -7      | A    |
| Collector Current Peak       | I <sub>CP</sub>  |                      | -14     | A    |
| Base Current DC              | I <sub>B</sub>   |                      | -1.5    | A    |
| Base Current Peak            | I <sub>BP</sub>  |                      | -2      | A    |
| Total Transistor Dissipation | P <sub>T</sub>   | T <sub>c</sub> = 25℃ | 10      | W    |

● Electrical Characteristics (T<sub>c</sub>=25℃)

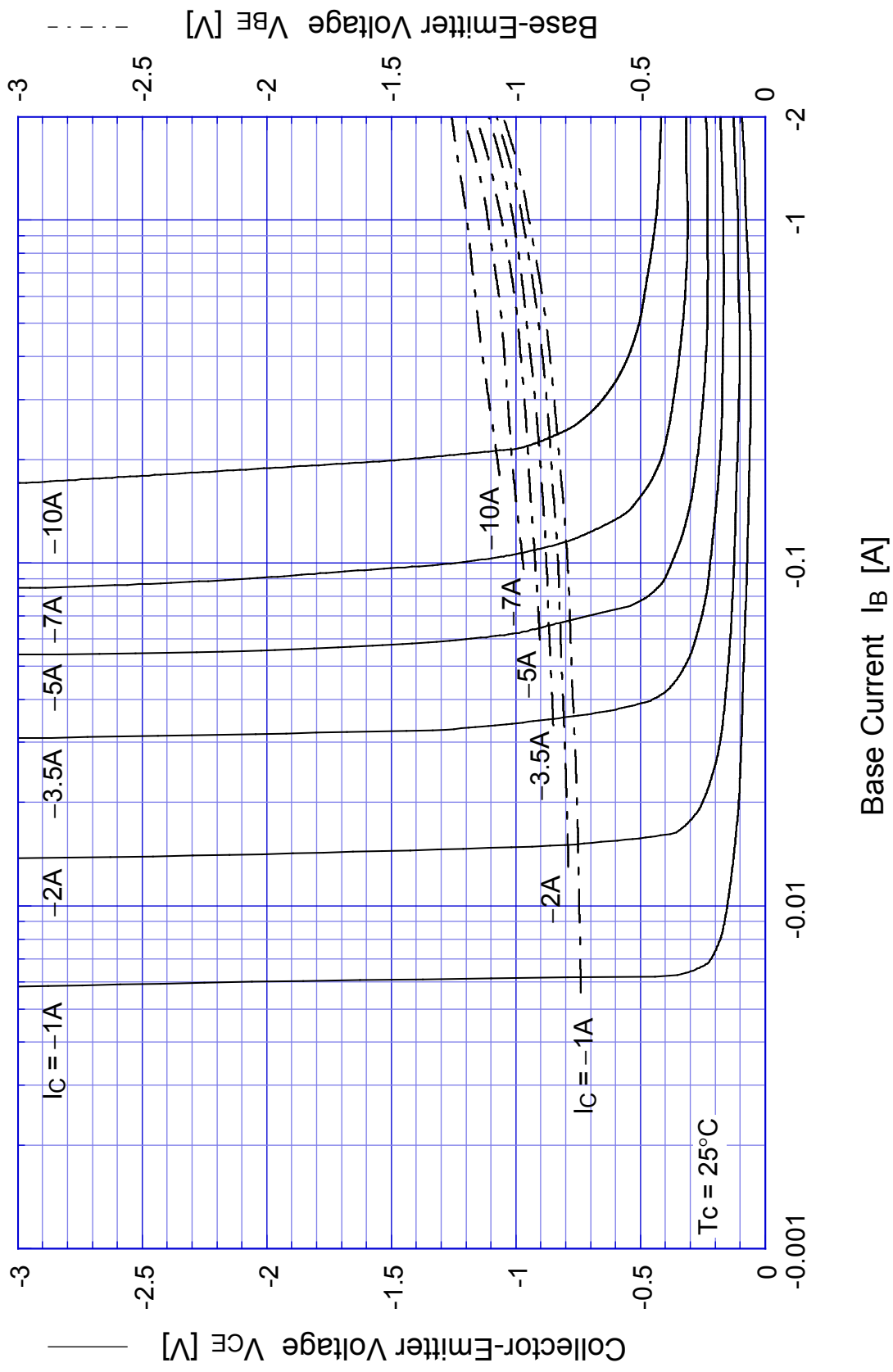
| Item                                    | Symbol                | Conditions                                                                                                                  | Ratings  | Unit |
|-----------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|----------|------|
| Collector to Emitter Sustaining Voltage | V <sub>CEO(sus)</sub> | I <sub>C</sub> = -0.1A                                                                                                      | Min -40  | V    |
| Collector Cutoff Current                | I <sub>CBO</sub>      | At rated Voltage                                                                                                            | Max -0.1 | mA   |
|                                         | I <sub>CEO</sub>      |                                                                                                                             | Max -0.1 |      |
| Emitter Cutoff Current                  | I <sub>EBO</sub>      | At rated Voltage                                                                                                            | Max -0.1 | mA   |
| DC Current Gain                         | h <sub>FE</sub>       | V <sub>CE</sub> = -2V, I <sub>C</sub> = -3.5A                                                                               | Min 70   |      |
| Collector to Emitter Saturation Voltage | V <sub>CE(sat)</sub>  | I <sub>C</sub> = -3.5A                                                                                                      | Max -0.3 | V    |
| Base to Emitter Saturation Voltage      | V <sub>BE(sat)</sub>  | I <sub>B</sub> = -0.2A                                                                                                      | Max -1.2 | V    |
| Thermal Resistance                      | θ <sub>jc</sub>       | Junction to case                                                                                                            | Max 12.5 | ℃/W  |
| Transition Frequency                    | f <sub>T</sub>        | V <sub>CE</sub> = -10V, I <sub>C</sub> = -0.7A                                                                              | TYP 50   | MHz  |
| Turn on Time                            | ton                   | I <sub>C</sub> = -3.5A<br>I <sub>B1</sub> = -0.35A, I <sub>B2</sub> = -0.35A<br>R <sub>L</sub> = 8Ω, V <sub>BB2</sub> = -4V | Max 0.3  | μ s  |
| Storage Time                            | ts                    |                                                                                                                             | Max 1.5  |      |
| Fall Time                               | tf                    |                                                                                                                             | Max 0.5  |      |

# 2SA1796

$h_{FE} - I_C$

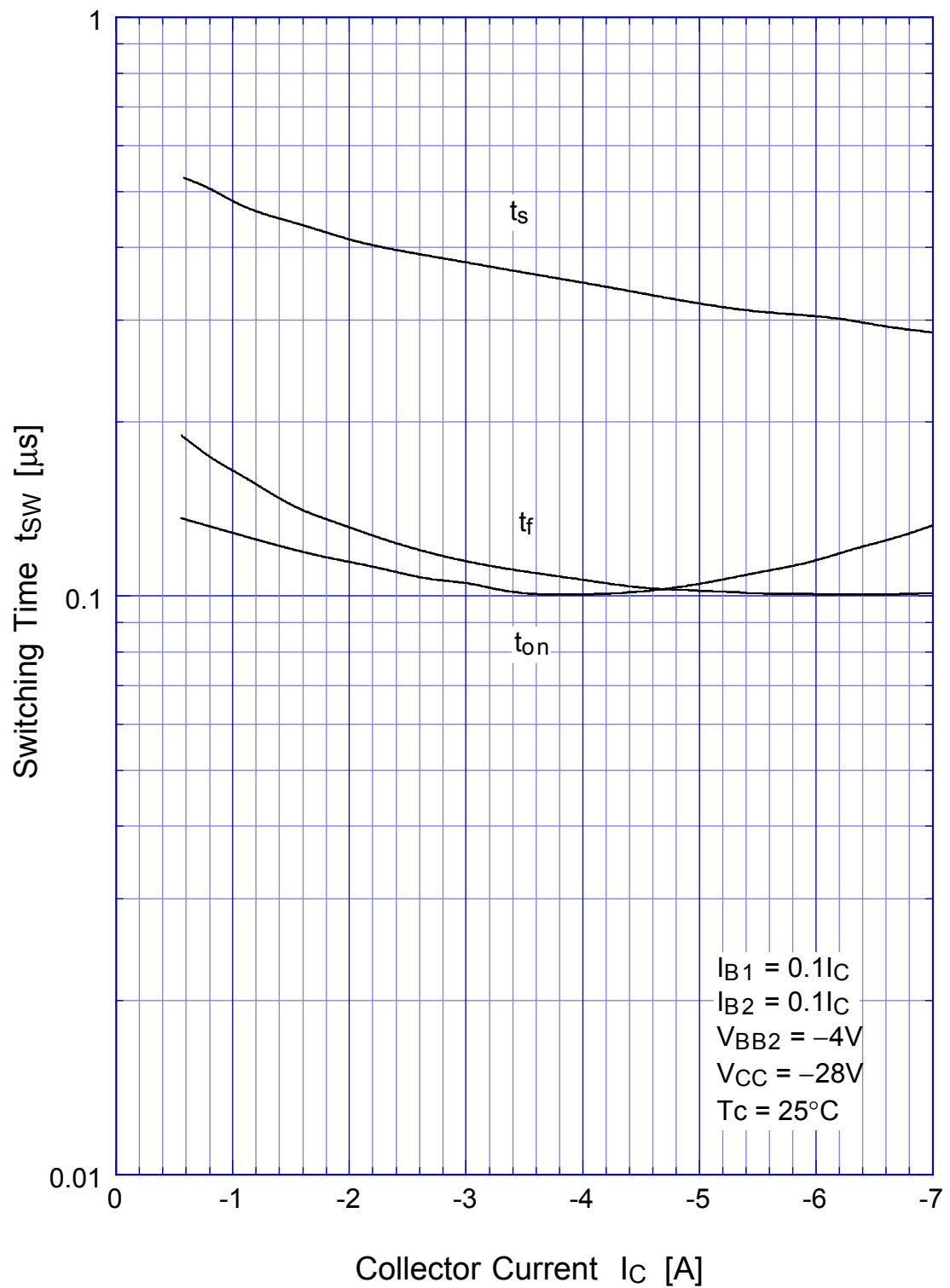


# 2SA1796 Saturation Voltage



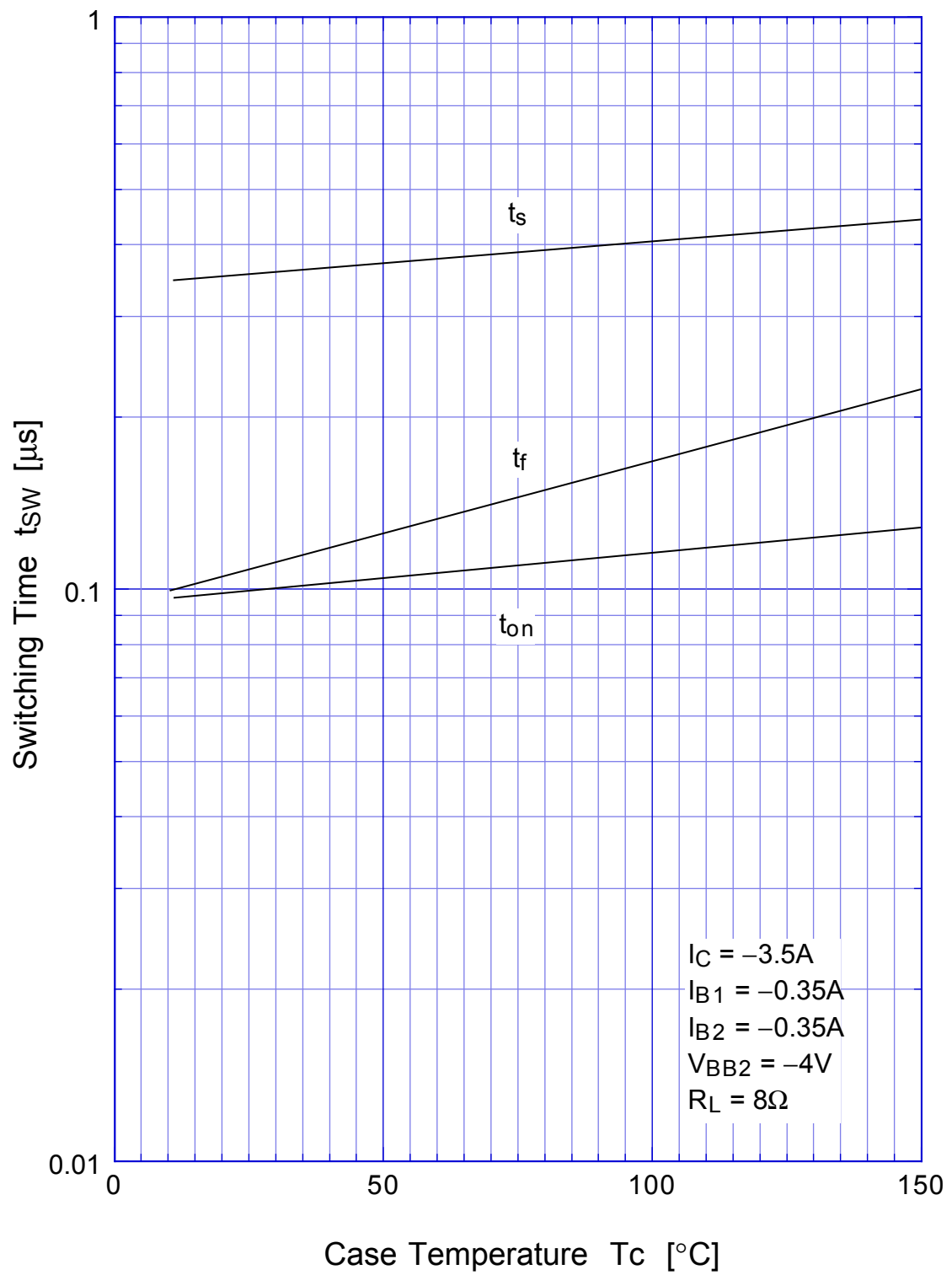
## 2SA1796

## Switching Time - $I_C$

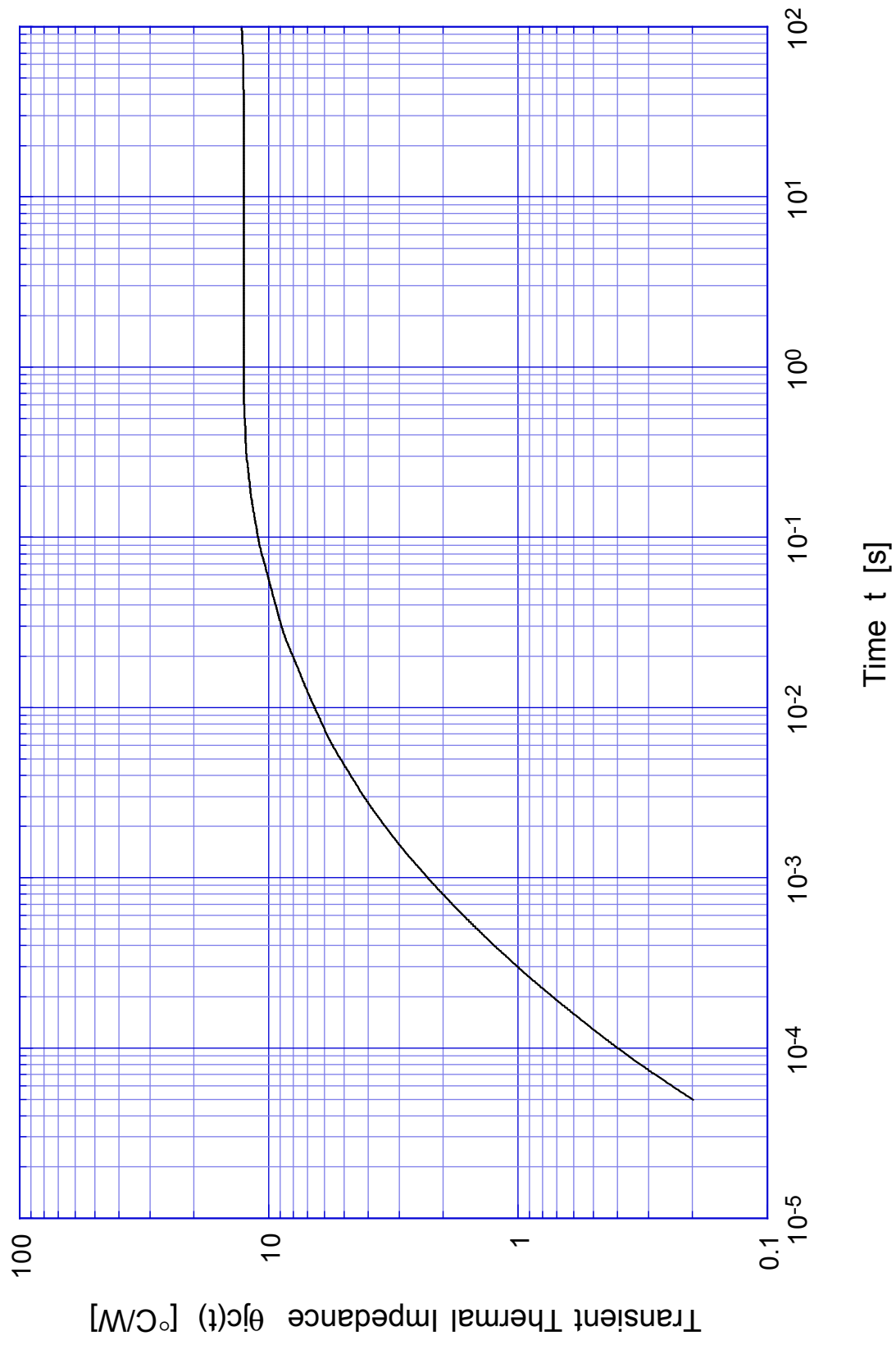


## 2SA1796

## Switching Time - $T_c$

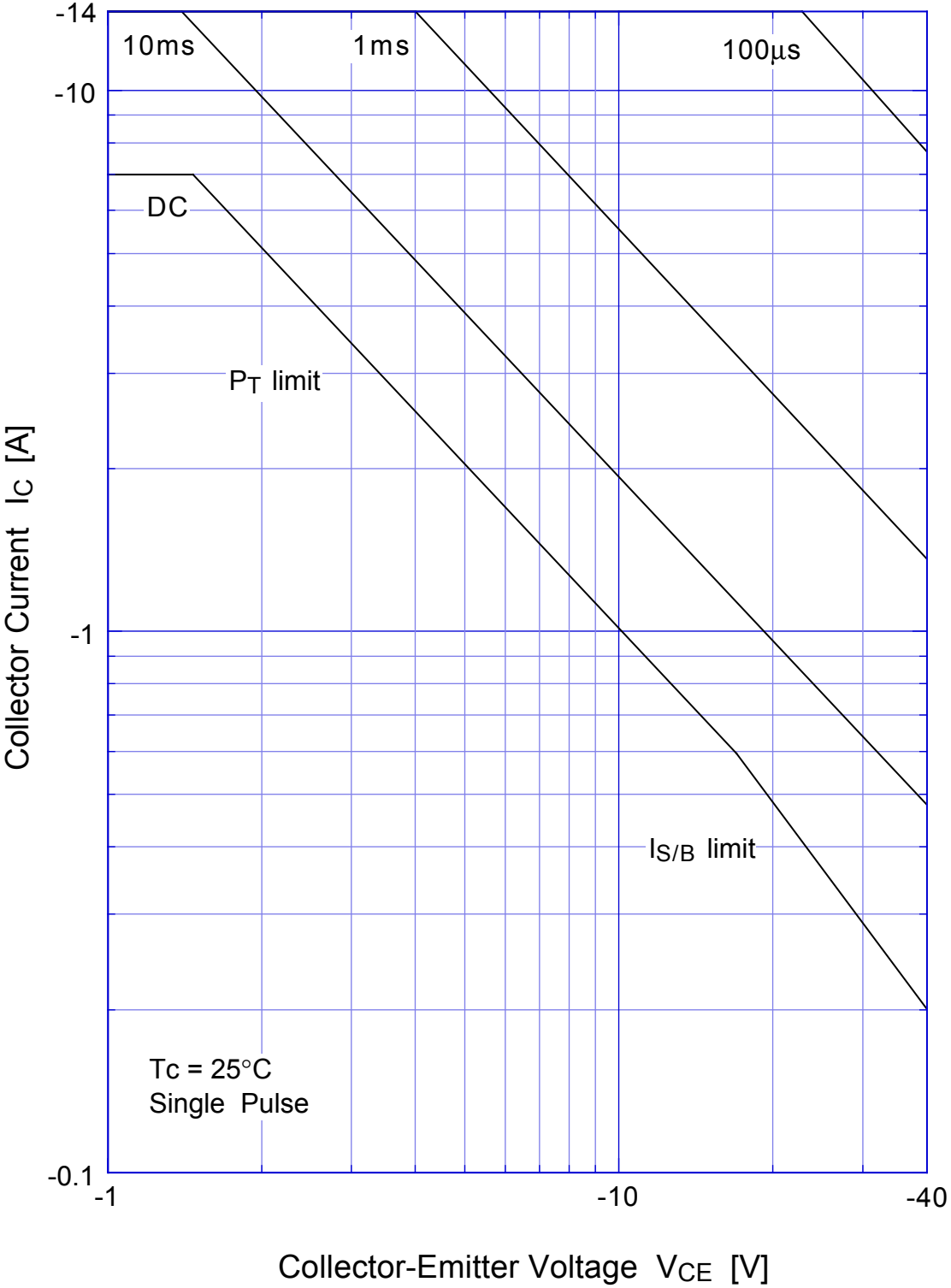


# 2SA1796      Transient Thermal Impedance

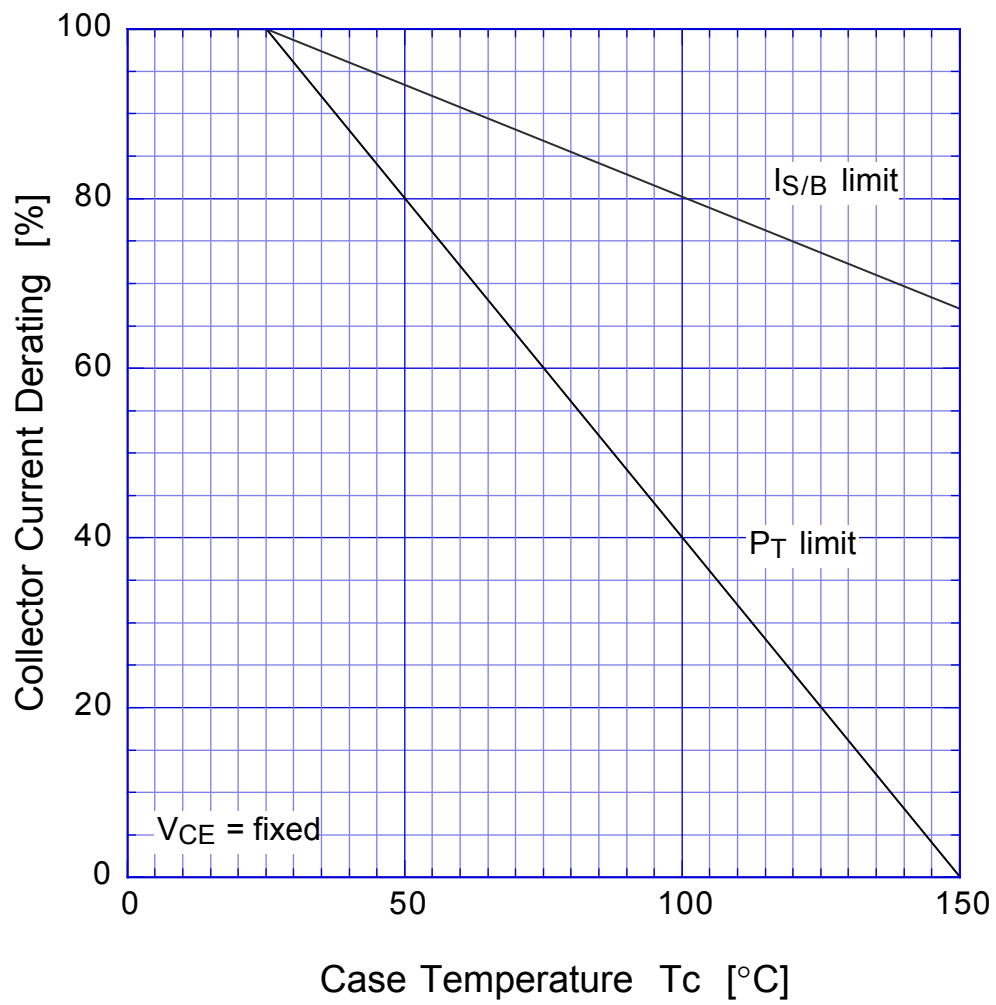


2SA1796

Forward Bias SOA



## 2SA1796 Collector Current Derating





2SA1796

Reverse Bias SOA

