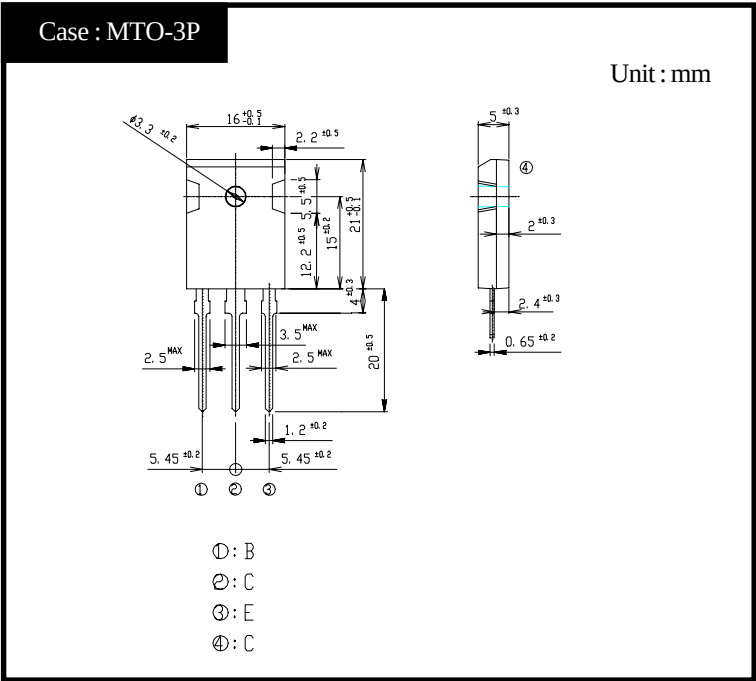


2SC4236  
(T6W80HFX)

6A NPN

OUTLINE DIMENSIONS



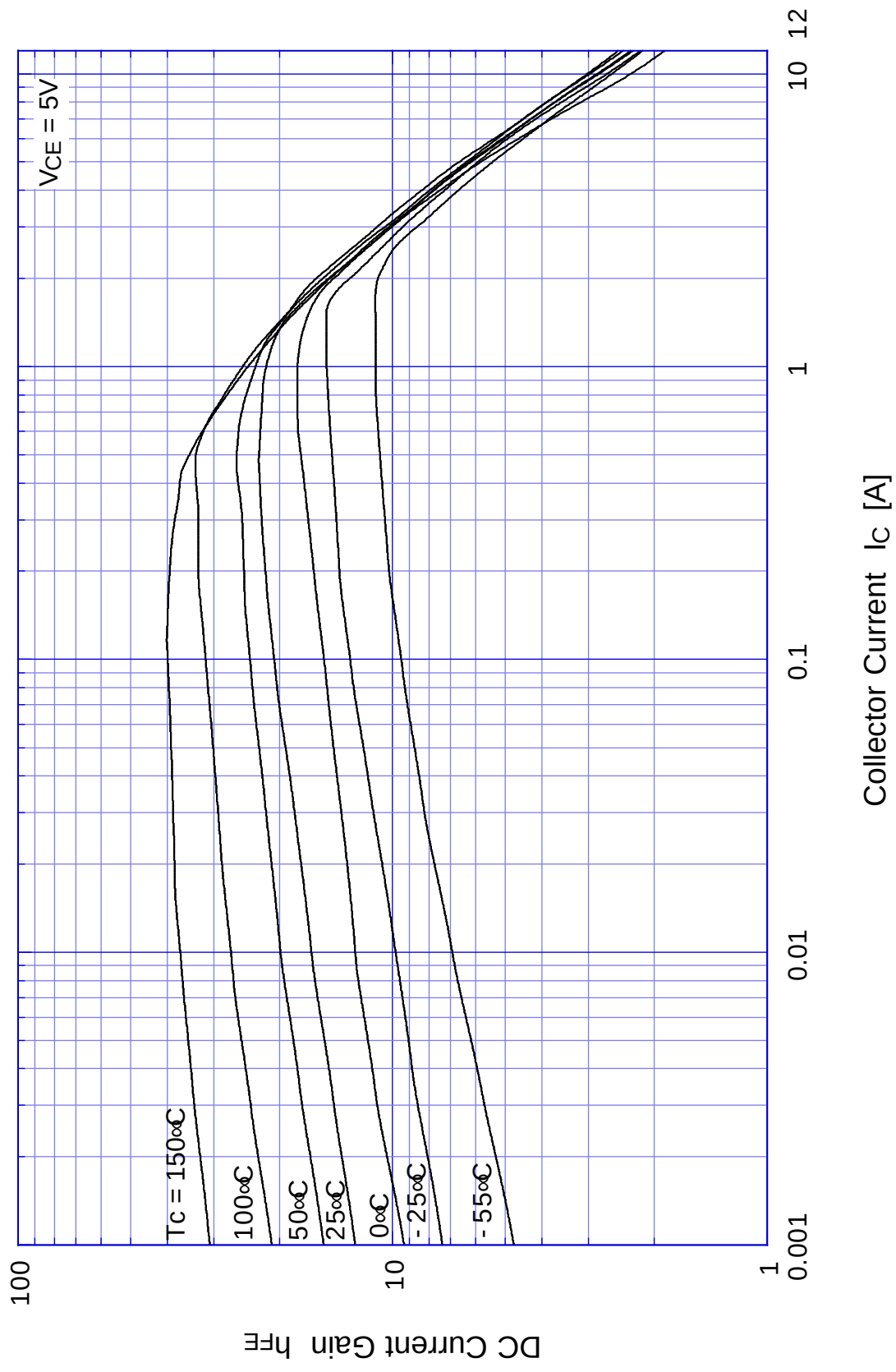
RATINGS

| ●Absolute Maximum Ratings    |                  |                               |         |      |
|------------------------------|------------------|-------------------------------|---------|------|
| Item                         | Symbol           | Conditions                    | Ratings | Unit |
| Storage Temperature          | Tstg             |                               | -55~150 | ℃    |
| Junction Temperature         | Tj               |                               | 150     | ℃    |
| Collector to Base Voltage    | V <sub>CBO</sub> |                               | 1200    | V    |
| Collector to Emitter Voltage | V <sub>CEO</sub> |                               | 800     | V    |
| Emitter to Base Voltage      | V <sub>EBO</sub> |                               | 7       | V    |
| Collector Current DC         | I <sub>C</sub>   |                               | 6       | A    |
| Collector Current Peak       | I <sub>CP</sub>  |                               | 12      |      |
| Base Current DC              | I <sub>B</sub>   |                               | 3       |      |
| Base Current Peak            | I <sub>BP</sub>  |                               | 6       | A    |
| Total Transistor Dissipation | P <sub>T</sub>   | T <sub>c</sub> = 25℃          | 100     | W    |
| Mounting Torque              | TOR              | (Recommended torque : 0.5N·m) | 0.8     | N·m  |

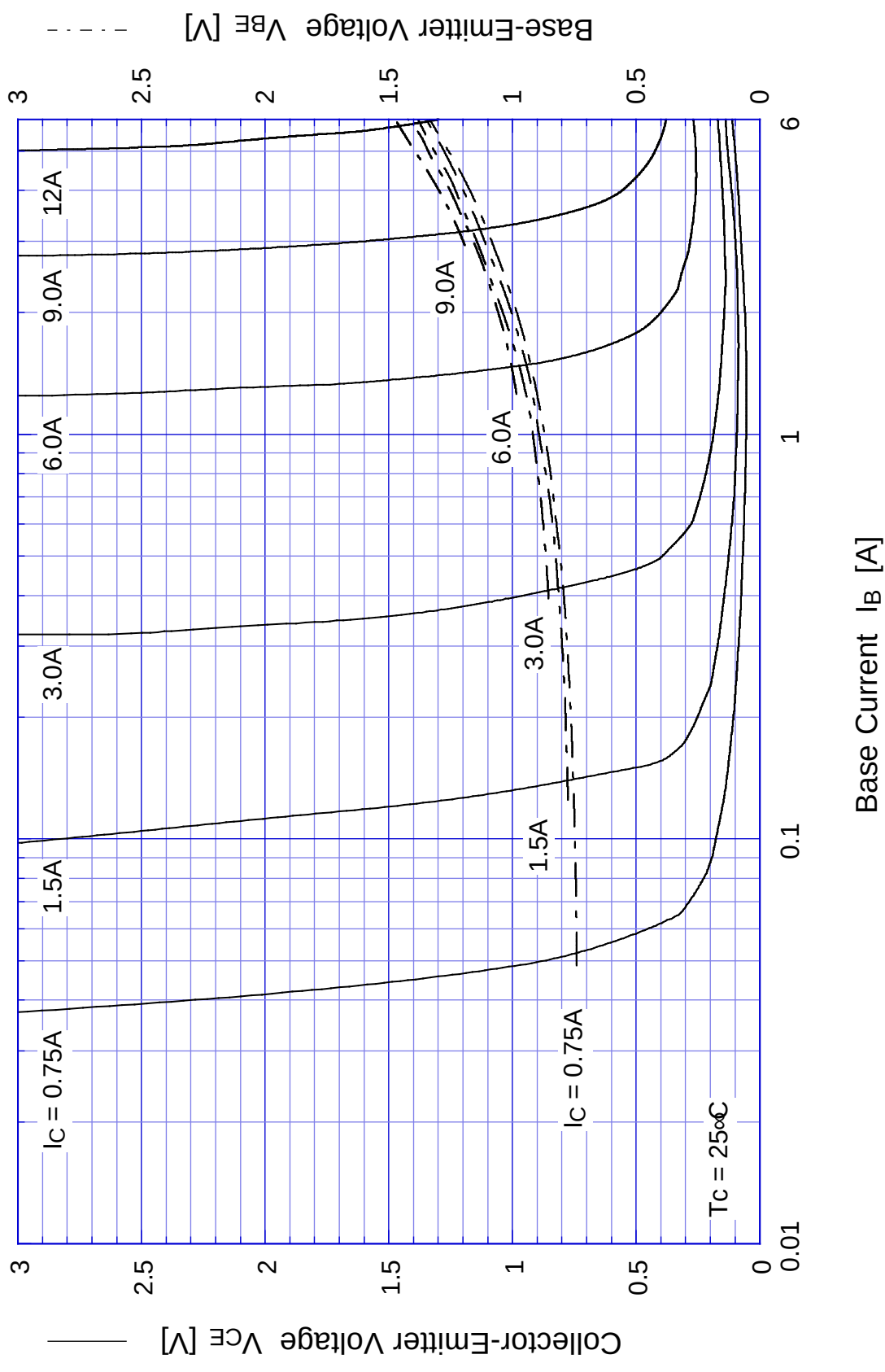
| ●Electrical Characteristics (T <sub>c</sub> =25℃) |                       |                                                |          |      |
|---------------------------------------------------|-----------------------|------------------------------------------------|----------|------|
| Item                                              | Symbol                | Conditions                                     | Ratings  | Unit |
| Collector to Emitter Sustaining Voltage           | V <sub>CEO(sus)</sub> | I <sub>C</sub> = 0.2A                          | Min 800  | 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> = 5V, I <sub>C</sub> = 3A      | Min 8    |      |
|                                                   | h <sub>FEL</sub>      | V <sub>CE</sub> = 5V, I <sub>C</sub> = 1mA     | Min 7    |      |
| Collector to Emitter Saturation Voltage           | V <sub>CE(sat)</sub>  | I <sub>C</sub> = 3A                            | Max 1.0  | V    |
| Base to Emitter Saturation Voltage                | V <sub>BE(sat)</sub>  | I <sub>B</sub> = 0.6A                          | Max 1.5  | V    |
| Thermal Resistance                                | θ <sub>jc</sub>       | Junction to case                               | Max 1.25 | ℃/W  |
| Transition Frequency                              | f <sub>T</sub>        | V <sub>CE</sub> = 10V, I <sub>C</sub> = 0.6A   | TYP 8    | MHz  |
| Turn on Time                                      | ton                   | I <sub>C</sub> = 3A                            | Max 0.5  | μ s  |
| Storage Time                                      | ts                    | I <sub>B1</sub> = 0.6A, I <sub>B2</sub> = 1.2A | Max 3.5  |      |
| Fall Time                                         | tf                    | R <sub>L</sub> = 85 Ω, V <sub>BB2</sub> = 4V   | Max 0.3  |      |

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$h_{FE} - I_C$

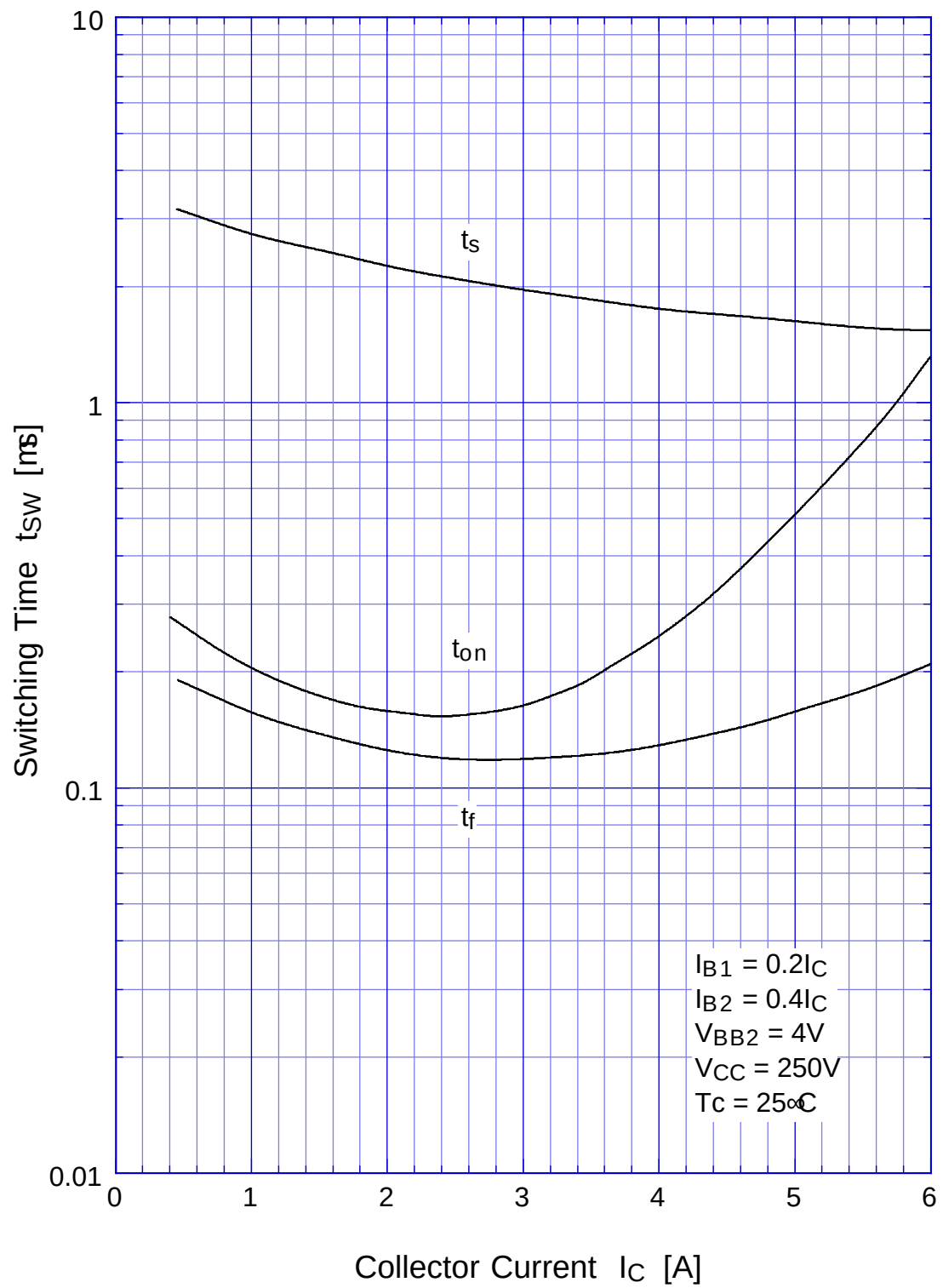


2SC4236      Saturation Voltage



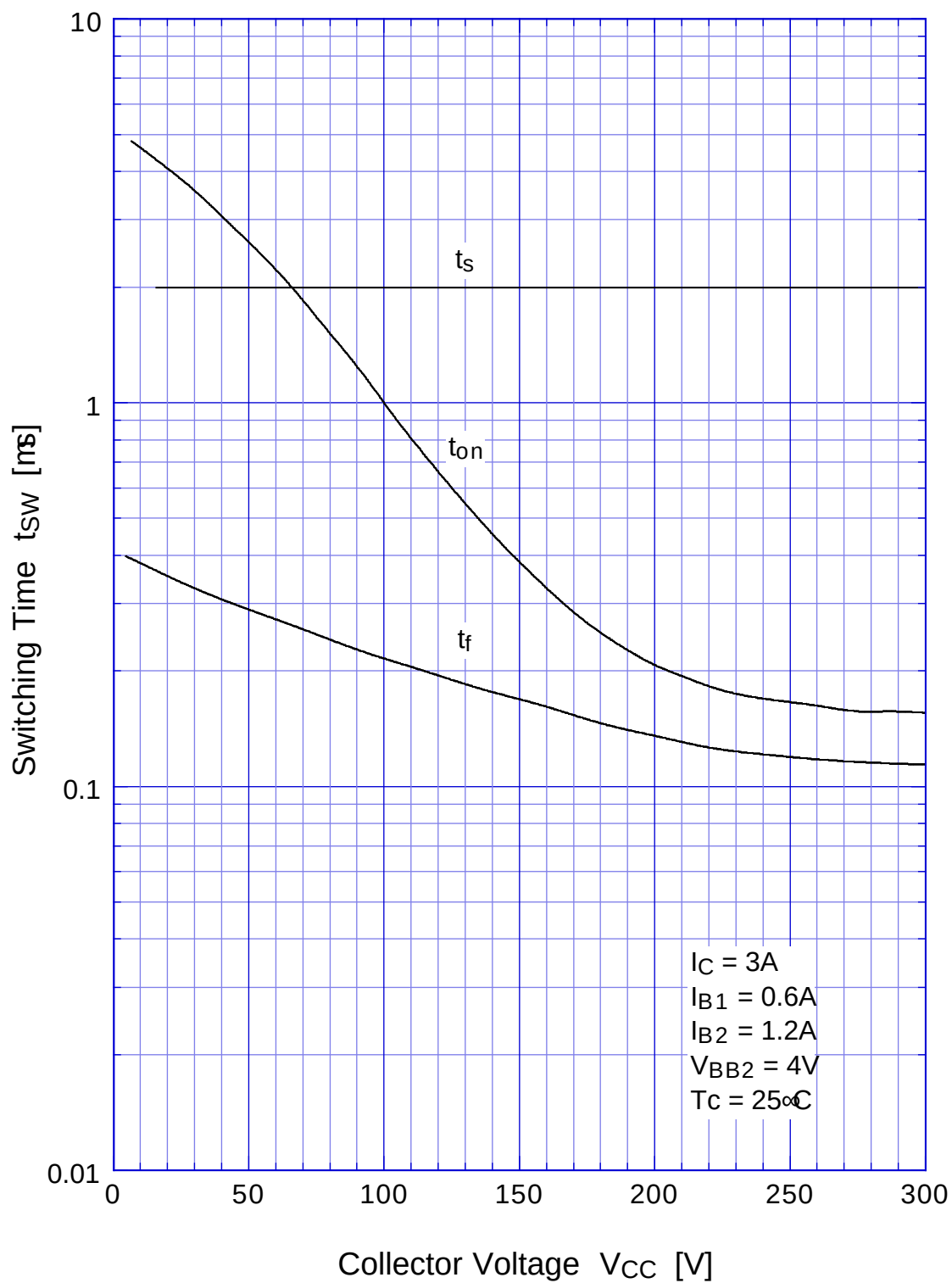
2SC4236

Switching Time -  $I_C$



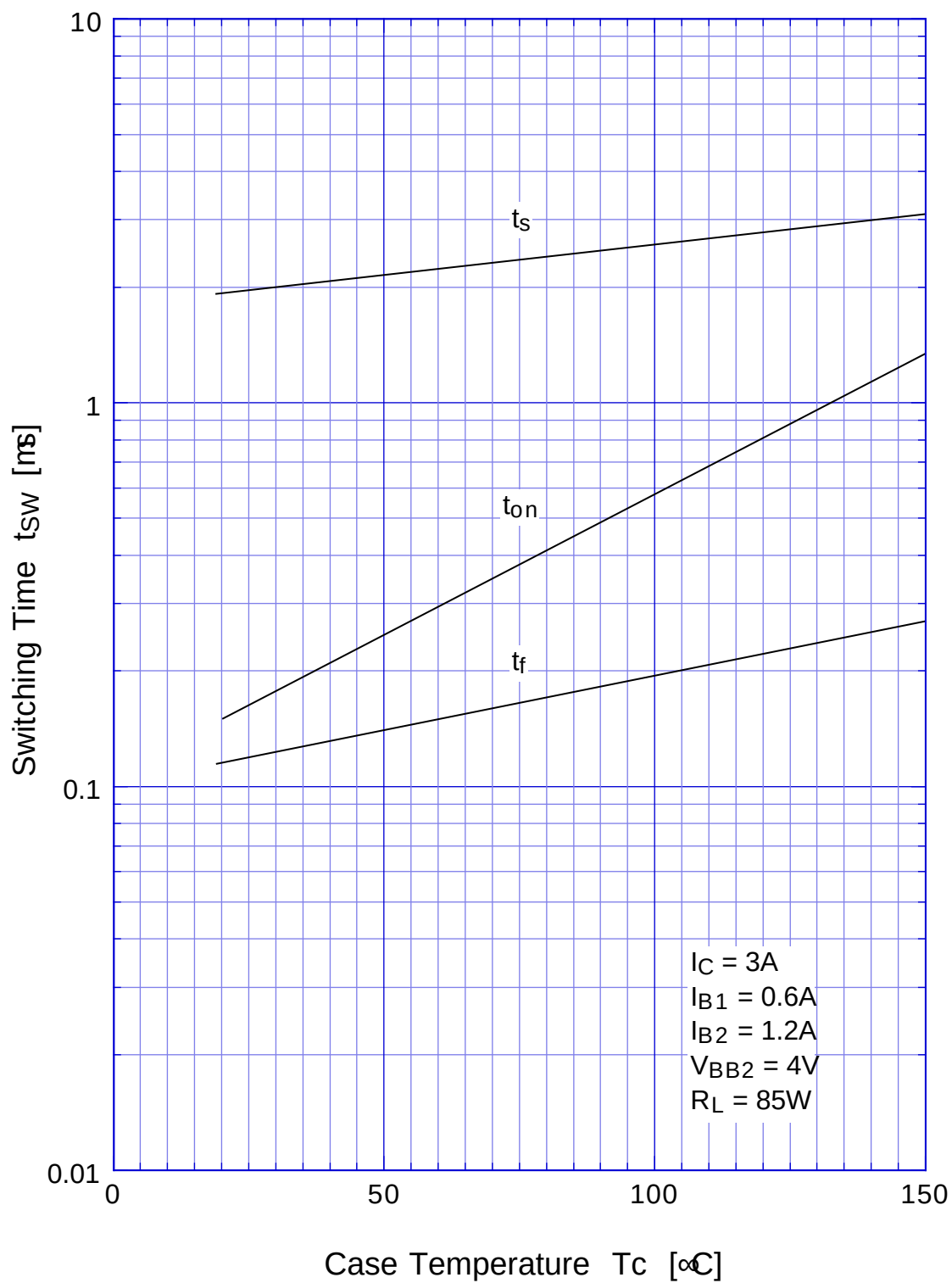
## 2SC4236

## Switching Time - $V_{CC}$

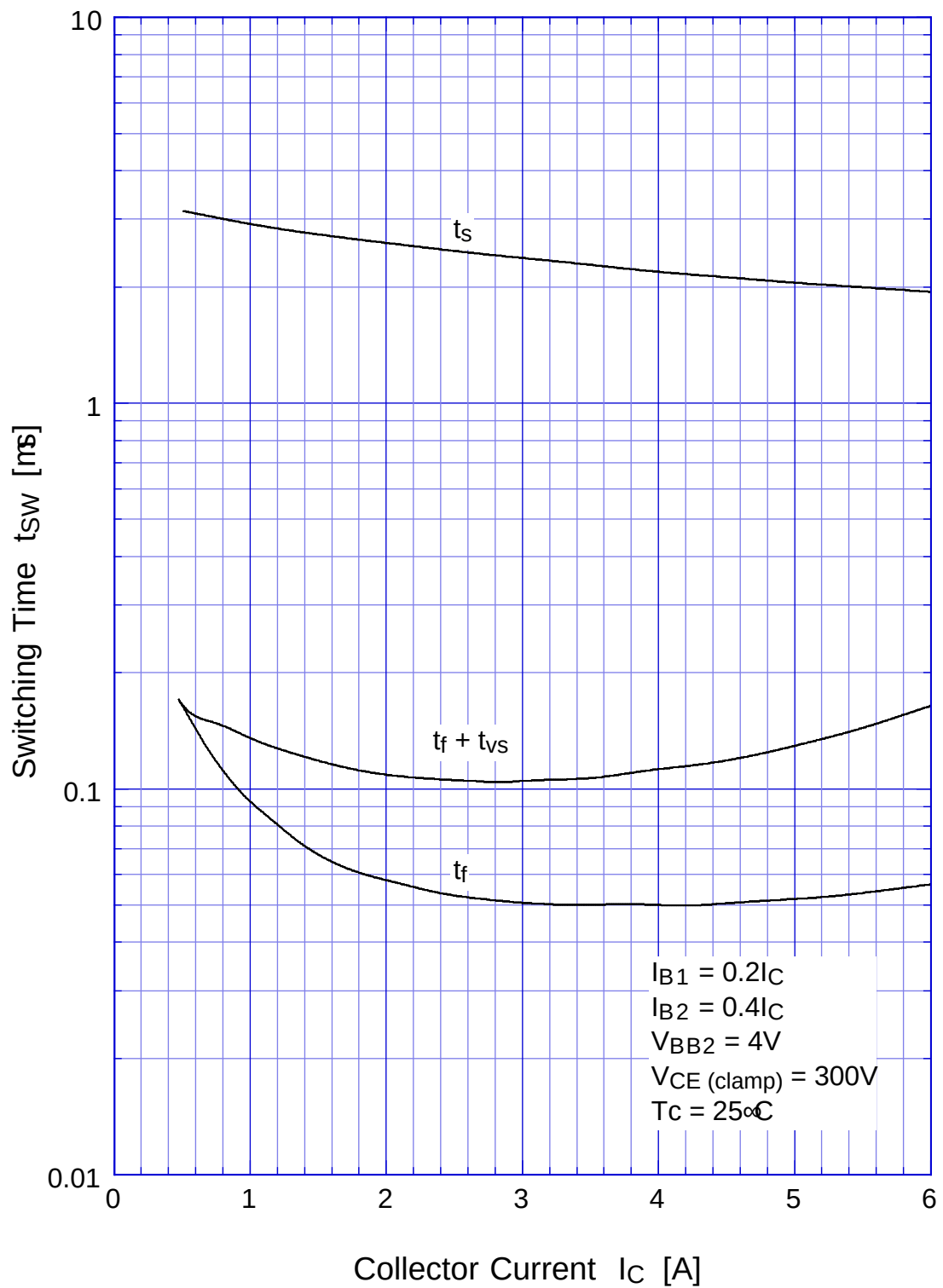


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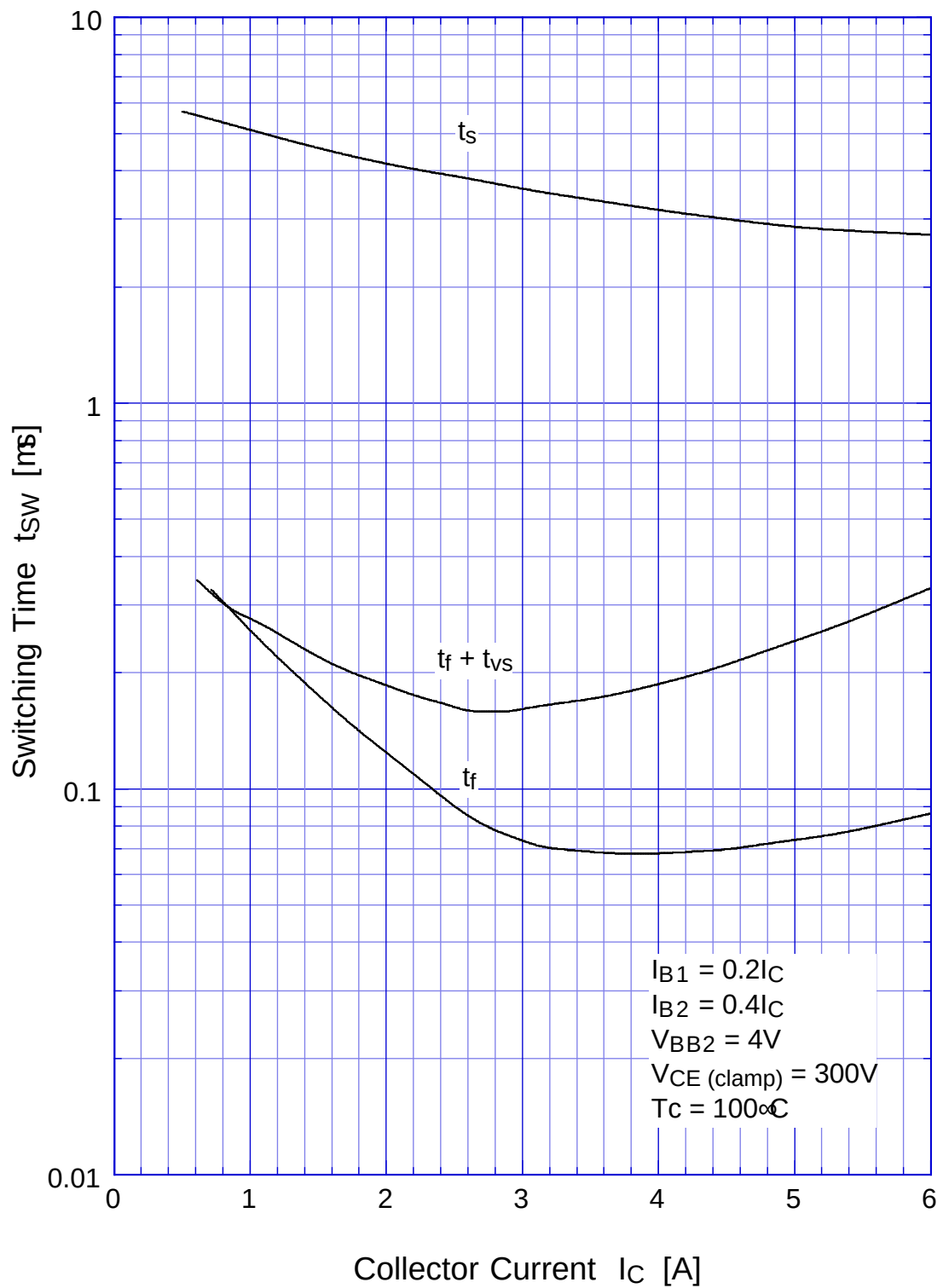
Switching Time -  $T_c$



## 2SC4236 L-Load Switching Time - $I_C$

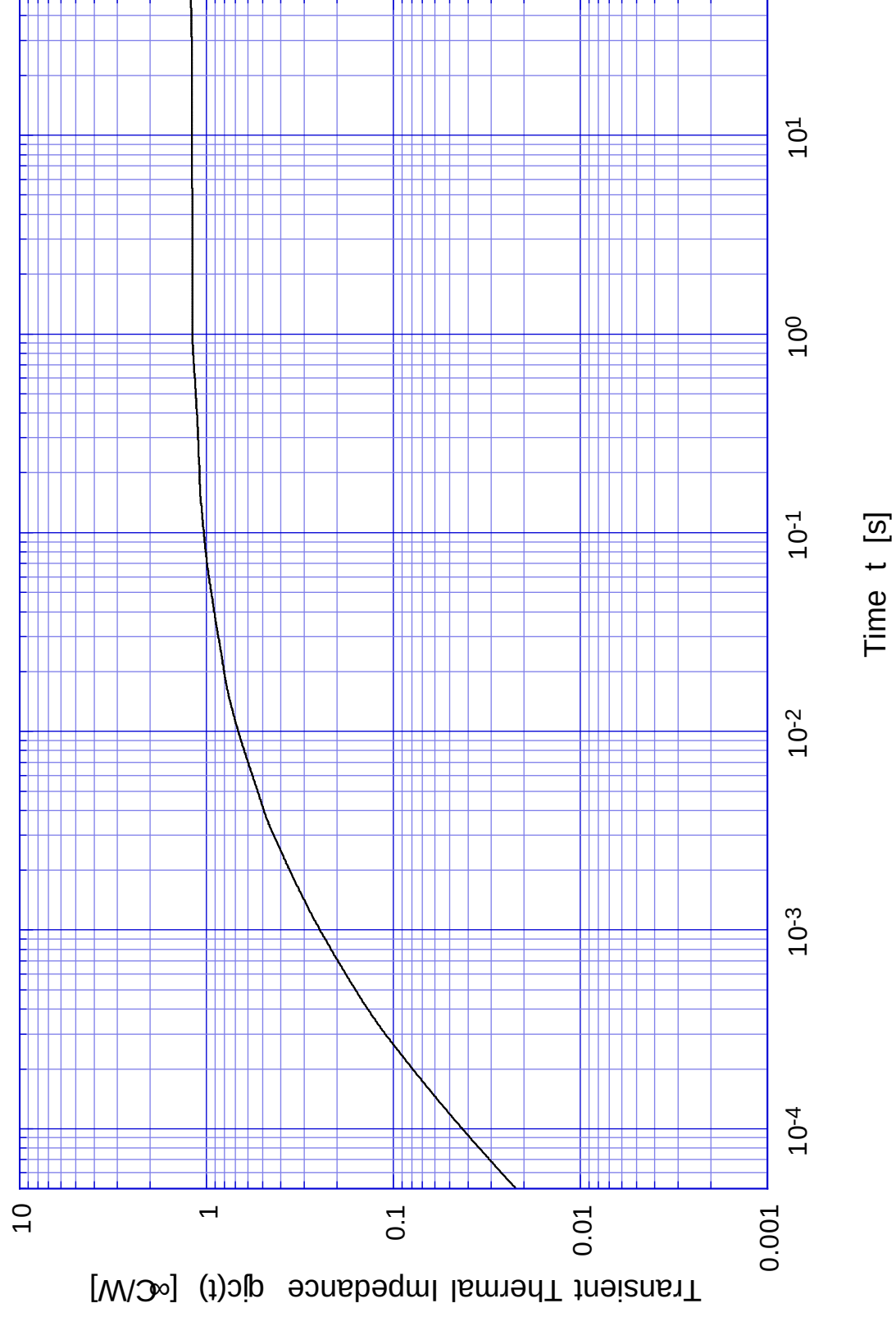


## 2SC4236 L-Load Switching Time - $I_C$ (At High Temperature)



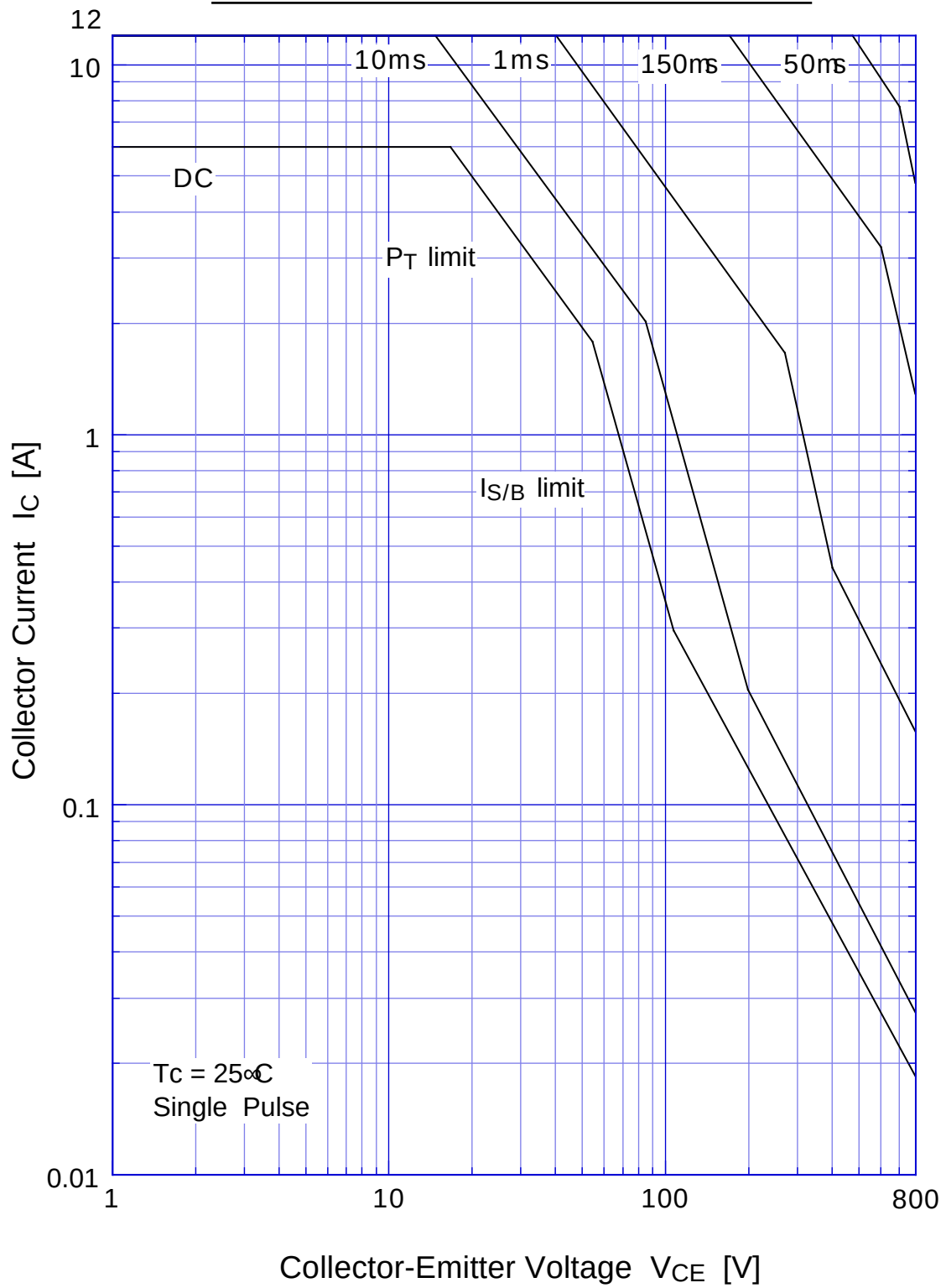


## 2SC4236      Transient Thermal Impedance

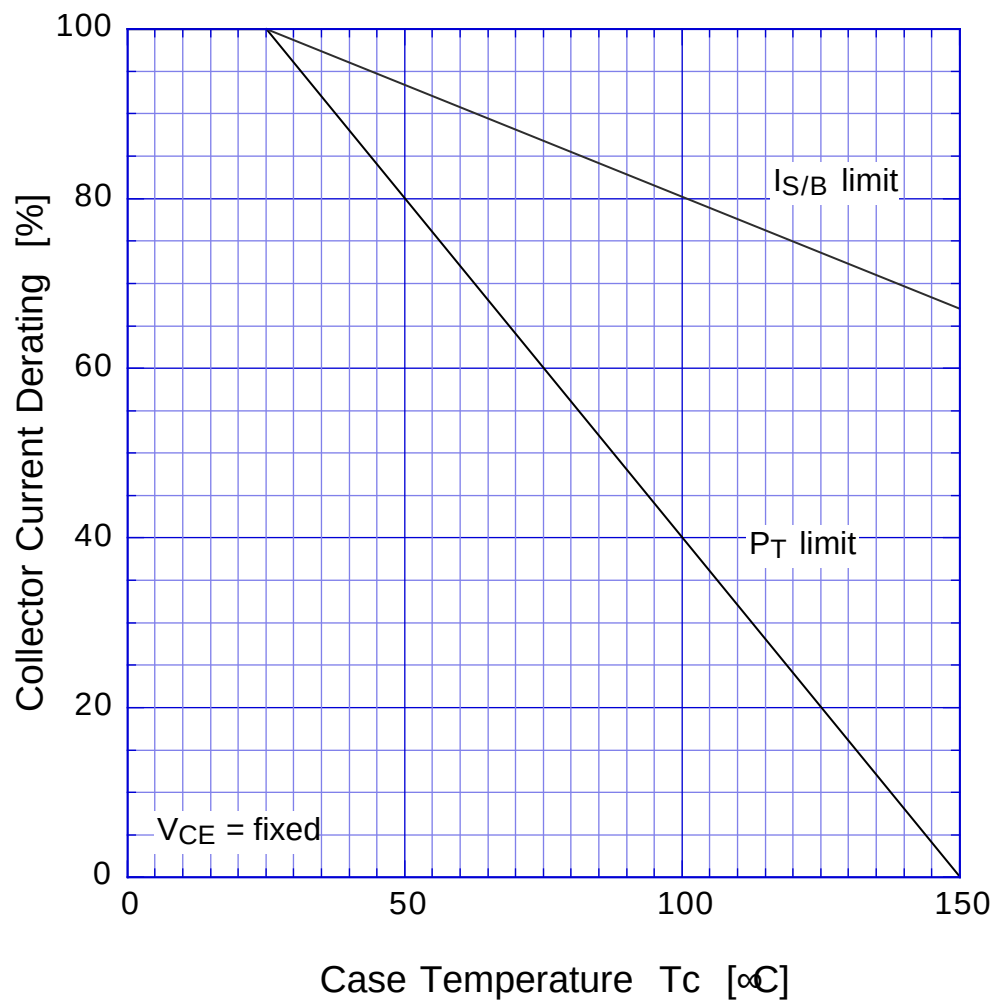


2SC4236

Forward Bias SOA



## 2SC4236 Collector Current Derating



2SC4236

Reverse Bias SOA

