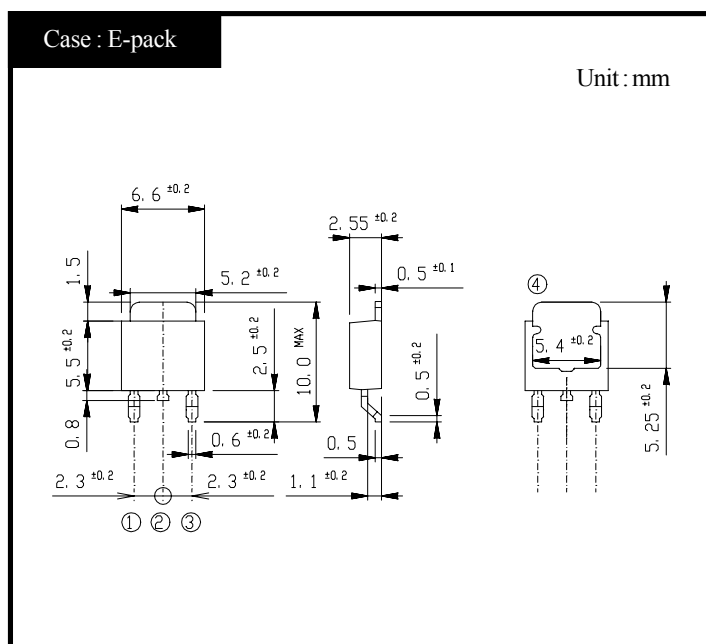


# 2SC4669

(TE10S4)

## 10A NPN

### OUTLINE DIMENSIONS



### RATINGS

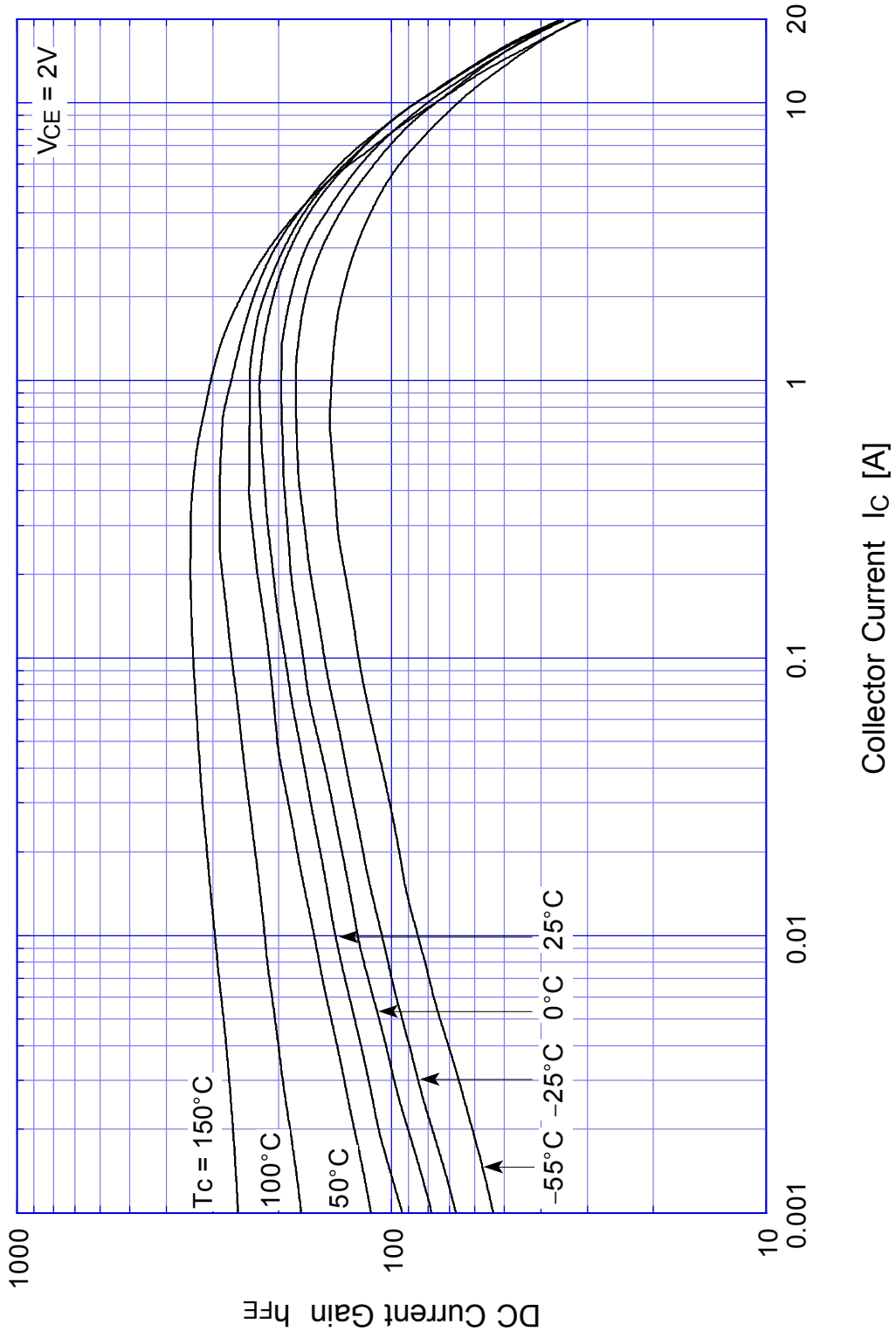
#### ● Absolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T <sub>stg</sub>		-55~150	°C
Junction Temperature	T <sub>j</sub>		150	°C
Collector to Base Voltage	V <sub>CB0</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>		10	A
Collector Current Peak	I <sub>CP</sub>		20	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°C	10	W

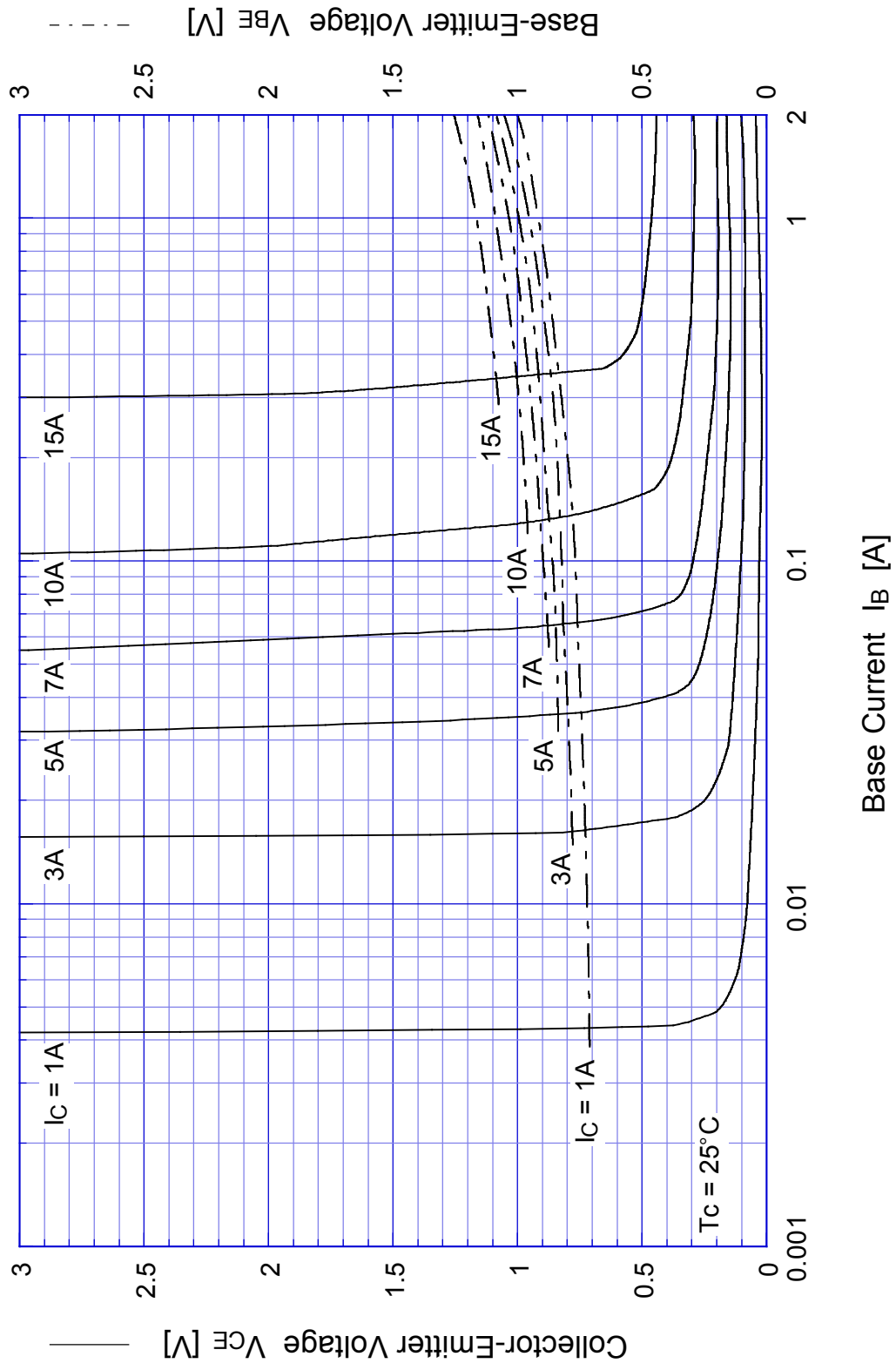
#### ● Electrical Characteristics (T<sub>c</sub>=25°C)

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> = 5A	Min 70	
Collector to Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 5A	Max 0.3	V
Base to Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>B</sub> = 0.5A	Max 1.2	V
Thermal Resistance	θ <sub>jc</sub>	Junction to case	Max 12.5	°C/W
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 1A	TYP 50	MHz
Turn on Time	ton	I <sub>C</sub> = 5A I <sub>B1</sub> = 0.5A, I <sub>B2</sub> = 0.5A R <sub>L</sub> = 5 Ω, V <sub>BB2</sub> = 4V	Max 0.3	μs
Storage Time	ts		Max 1.5	
Fall Time	tf		Max 0.5	

2SC4669  $h_{FE} - I_C$

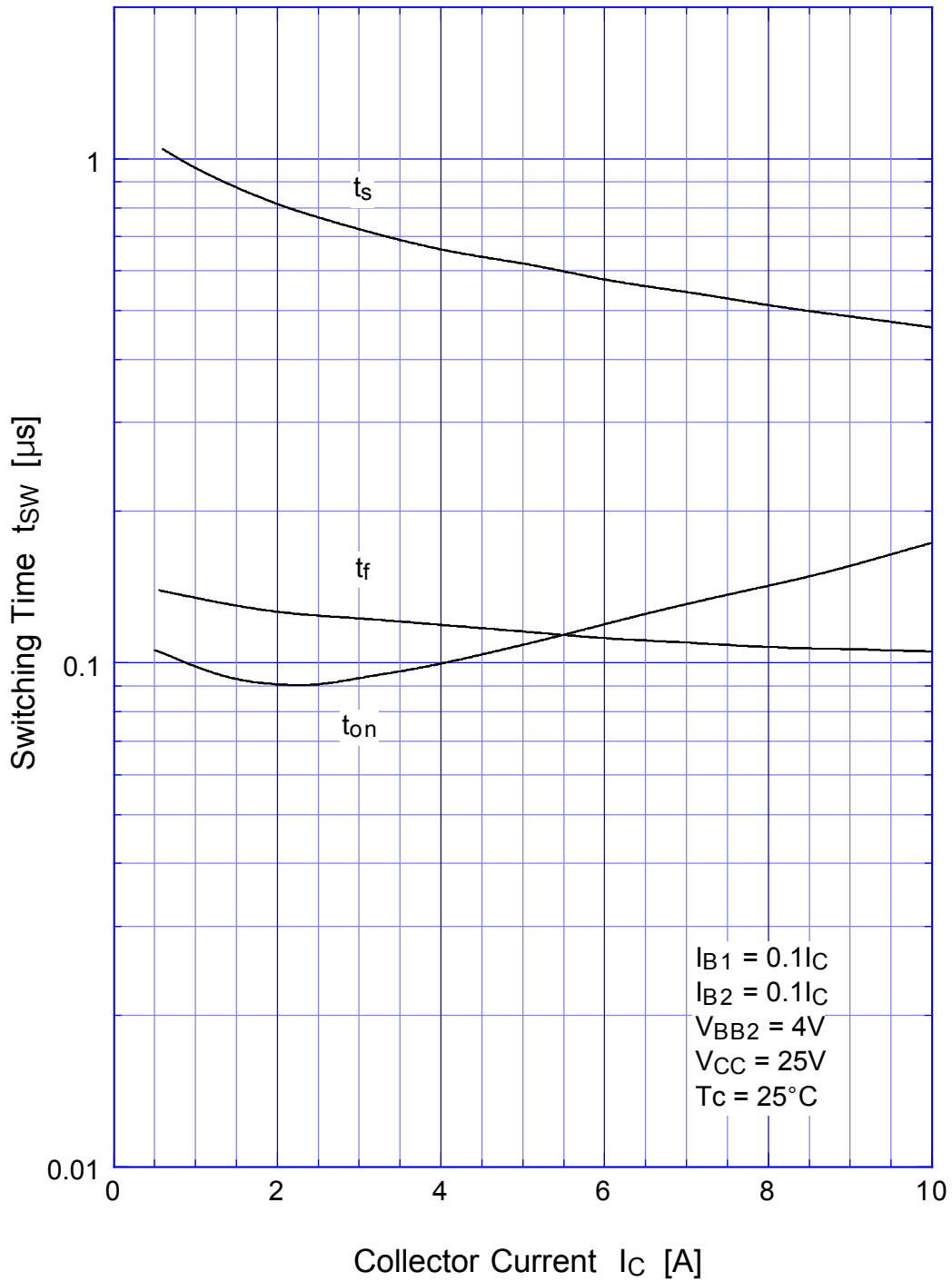


## 2SC4669 Saturation Voltage



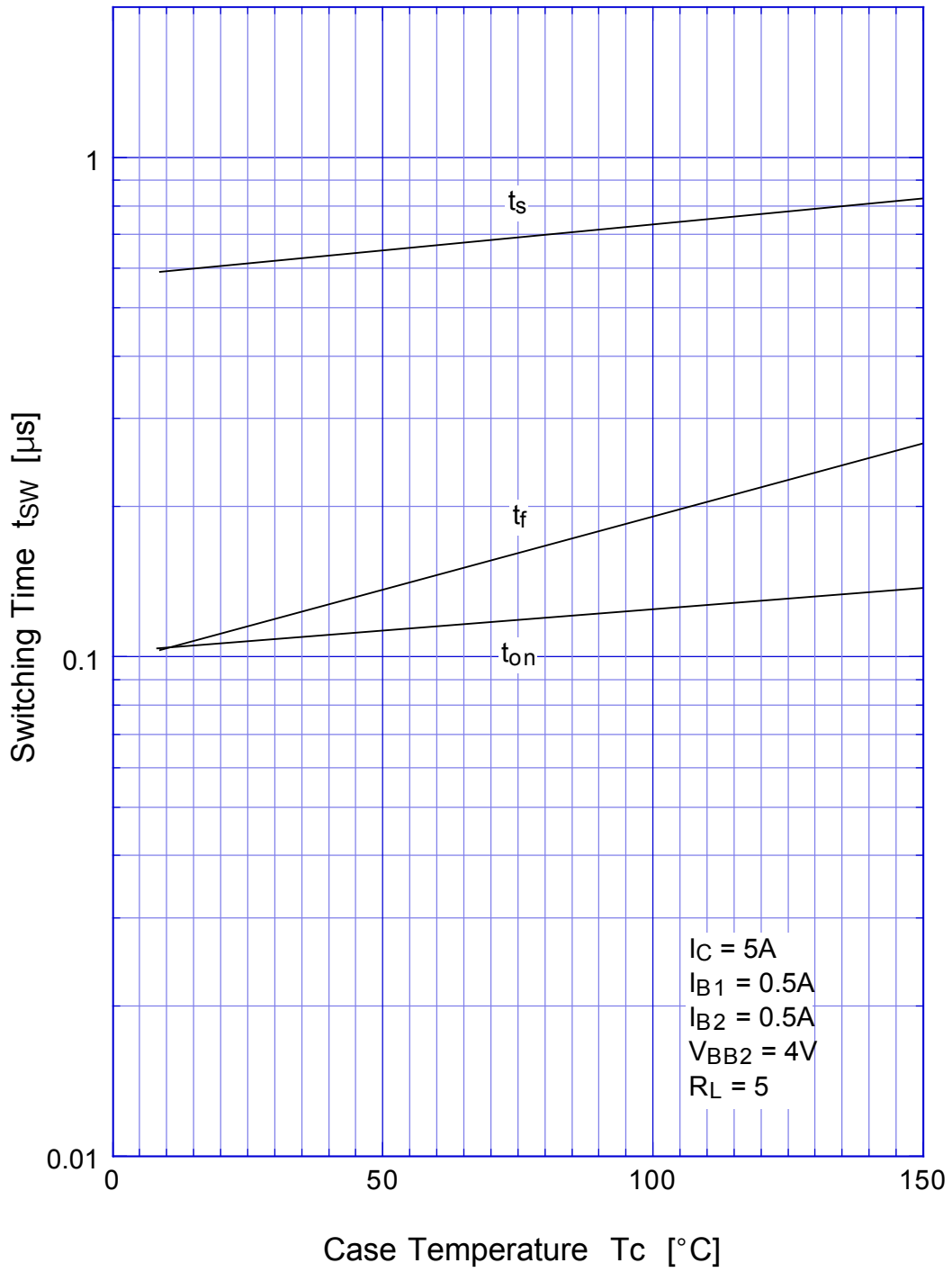
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## Switching Time - $I_C$

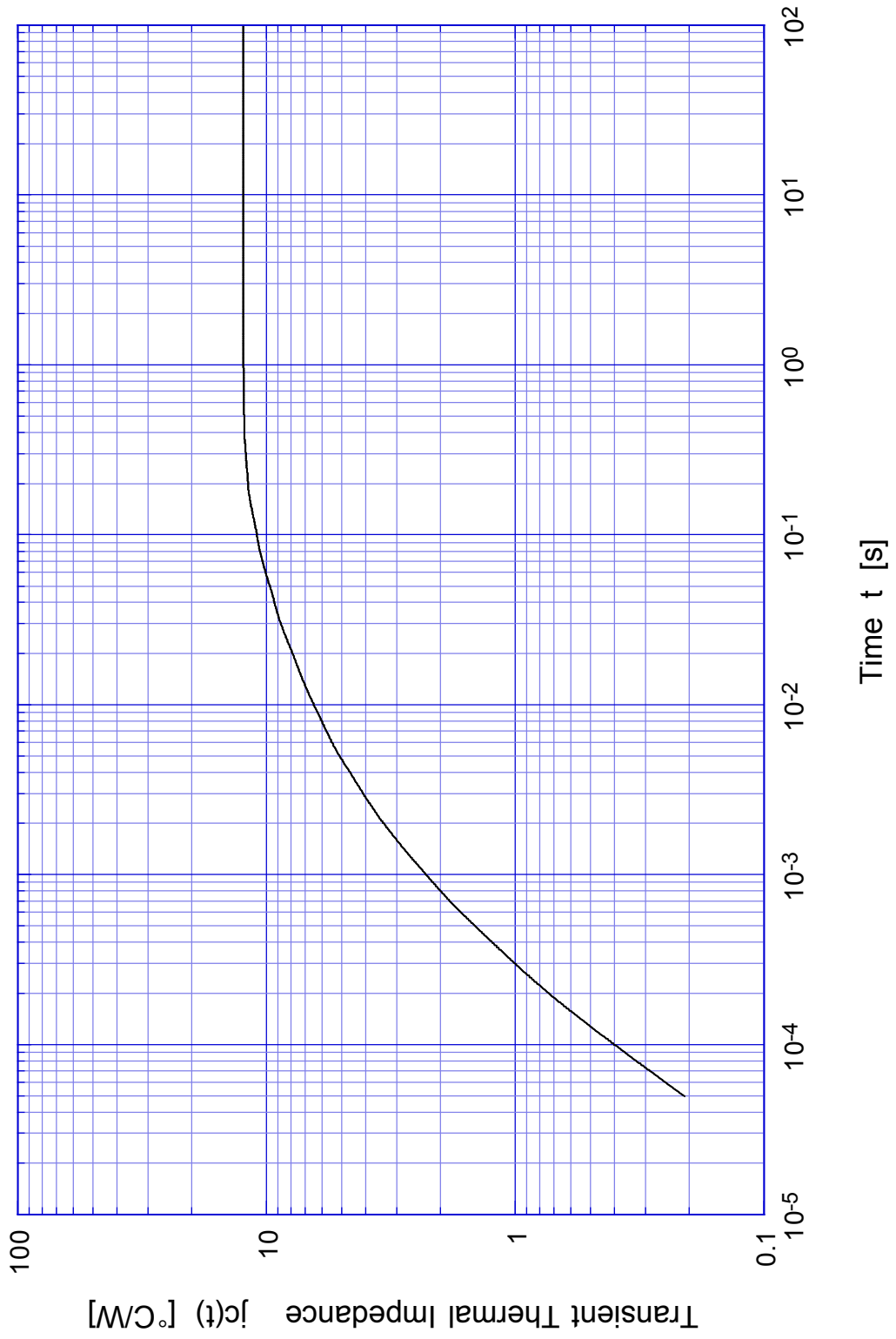


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## Switching Time - Tc

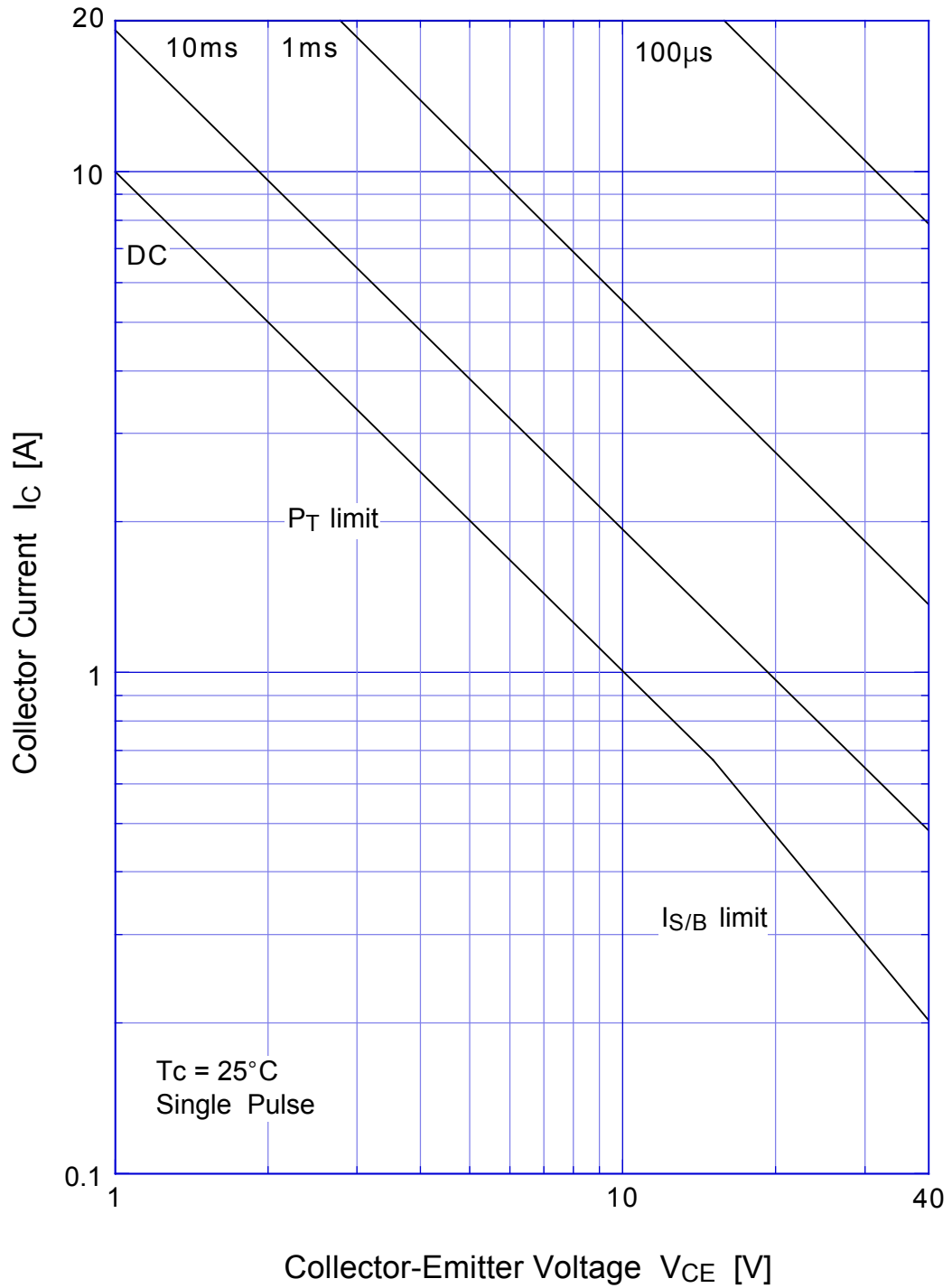


## 2SC4669 Transient Thermal Impedance

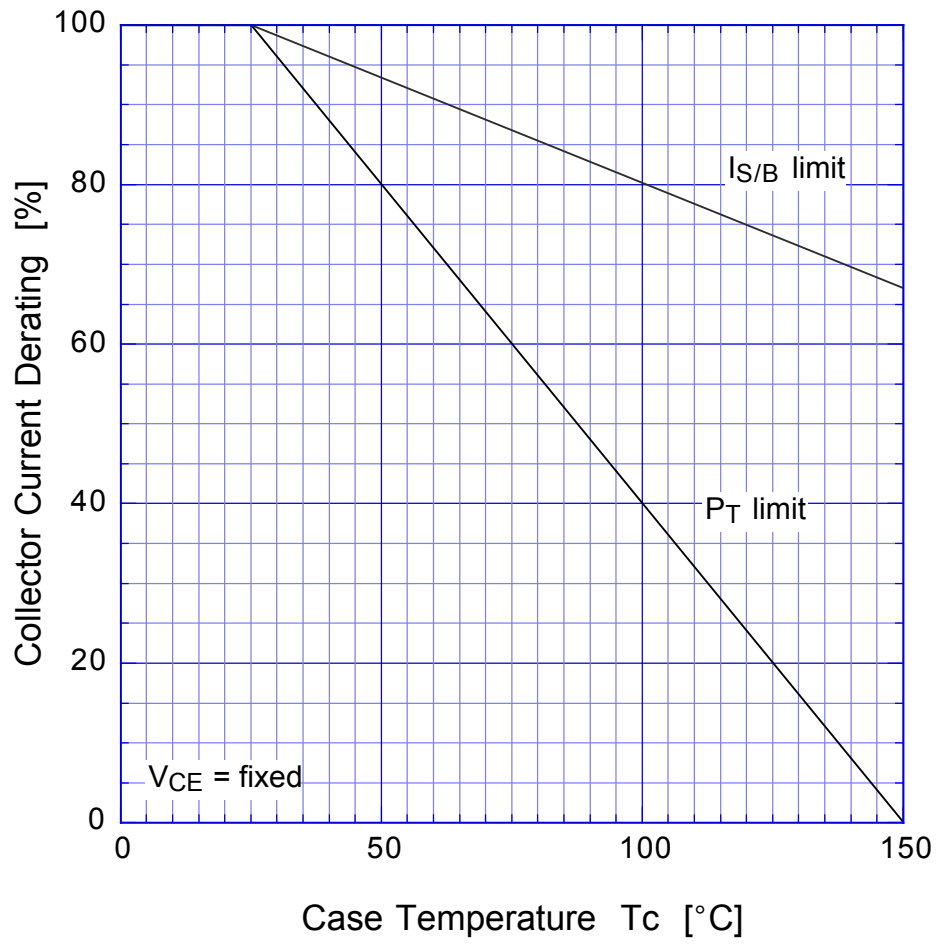


# 2SC4669

## Forward Bias SOA



## 2SC4669 Collector Current Derating





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Reverse Bias SOA

