

SHINDENG

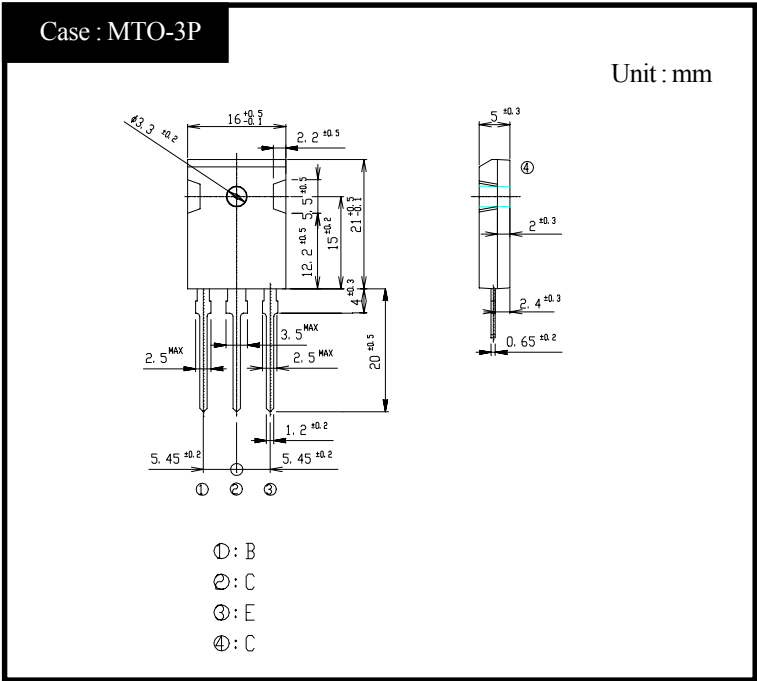
Switching Power Transistor

HFX Series

2SC4236
(T6W80HFX)

6A NPN

OUTLINE DIMENSIONS



RATINGS

●Absolute Maximum Ratings

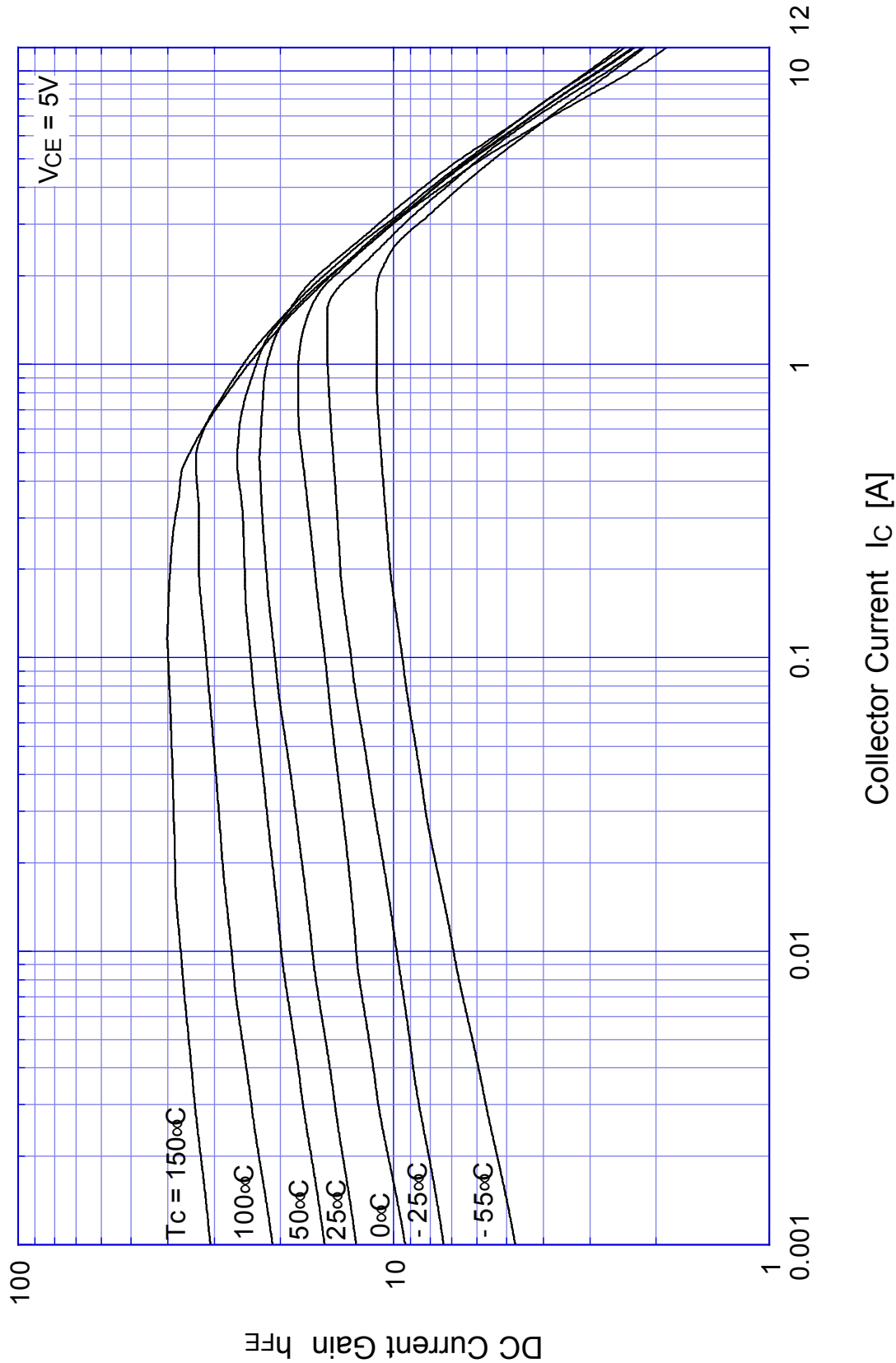
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55~150	°C
Junction Temperature	T _j		150	°C
Collector to Base Voltage	V _{CBO}		1200	V
Collector to Emitter Voltage	V _{CEO}		800	V
Emitter to Base Voltage	V _{EBO}		7	V
Collector Current DC	I _C		6	A
Collector Current Peak	I _{CP}		12	
Base Current DC	I _B		3	
Base Current Peak	I _{BP}		6	A
Total Transistor Dissipation	P _T	T _c = 25°C	100	W
Mounting Torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

●Electrical Characteristics (T_c=25°C)

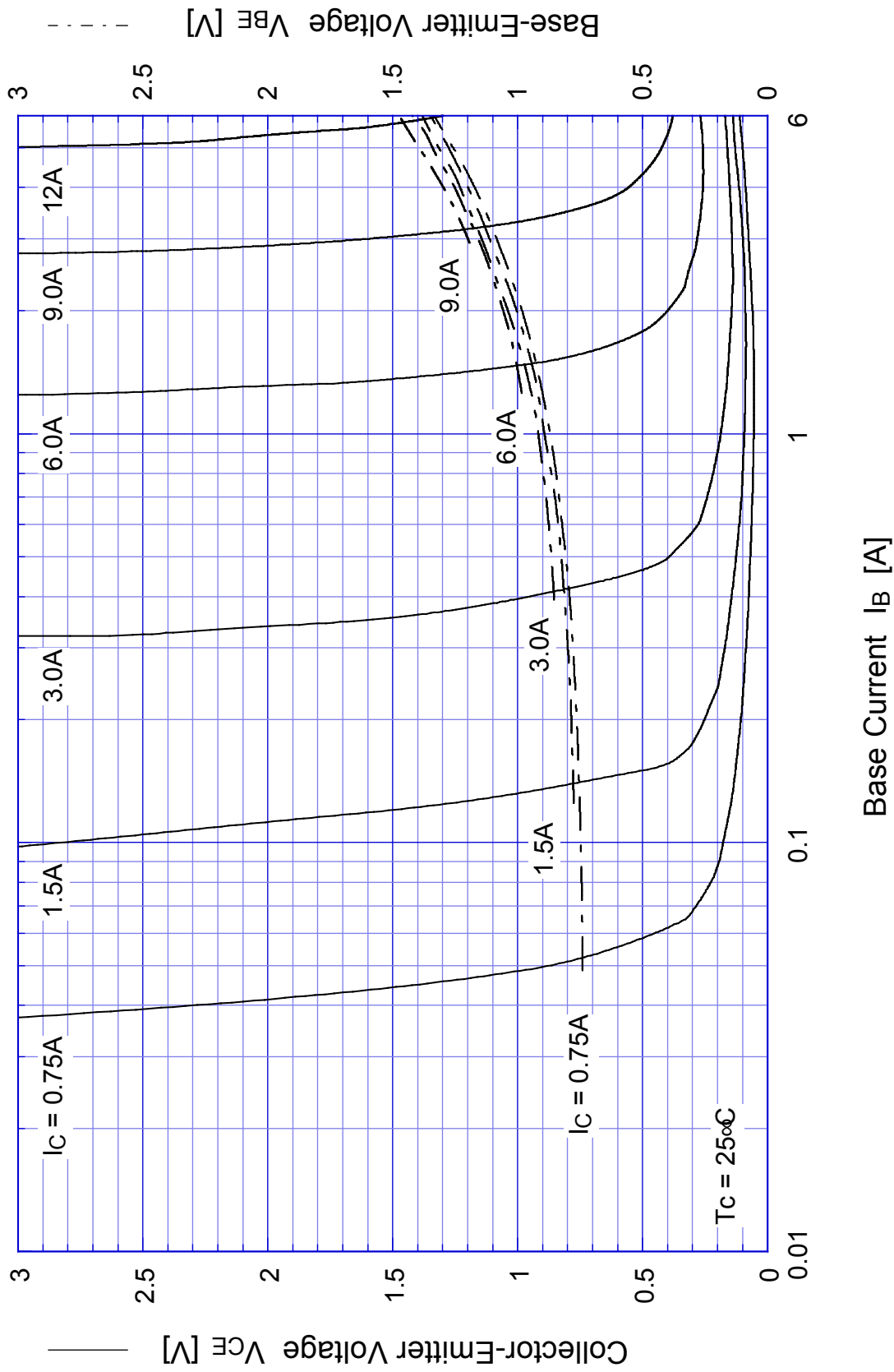
Item	Symbol	Conditions	Ratings	Unit
Collector to Emitter Sustaining Voltage	V _{CEO(sus)}	I _C = 0.2A	Min 800	V
Collector Cutoff Current	I _{CBO}	At rated Voltage	Max 0.1	mA
	I _{CEO}		Max 0.1	
Emitter Cutoff Current	I _{EBO}	At rated Voltage	Max 0.1	mA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 3A	Min 8	
	h _{FEL}	V _{CE} = 5V, I _C = 1mA	Min 7	
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C = 3A	Max 1.0	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _B = 0.6A	Max 1.5	V
Thermal Resistance	θ _{jc}	Junction to case	Max 1.25	°C/W
Transition Frequency	f _T	V _{CE} = 10V, I _C = 0.6A	TYP 8	MHz
Turn on Time	ton	I _C = 3A	Max 0.5	μs
Storage Time	ts	I _{B1} = 0.6A, I _{B2} = 1.2A	Max 3.5	
Fall Time	tf	R _L = 85Ω, V _{BB2} = 4V	Max 0.3	

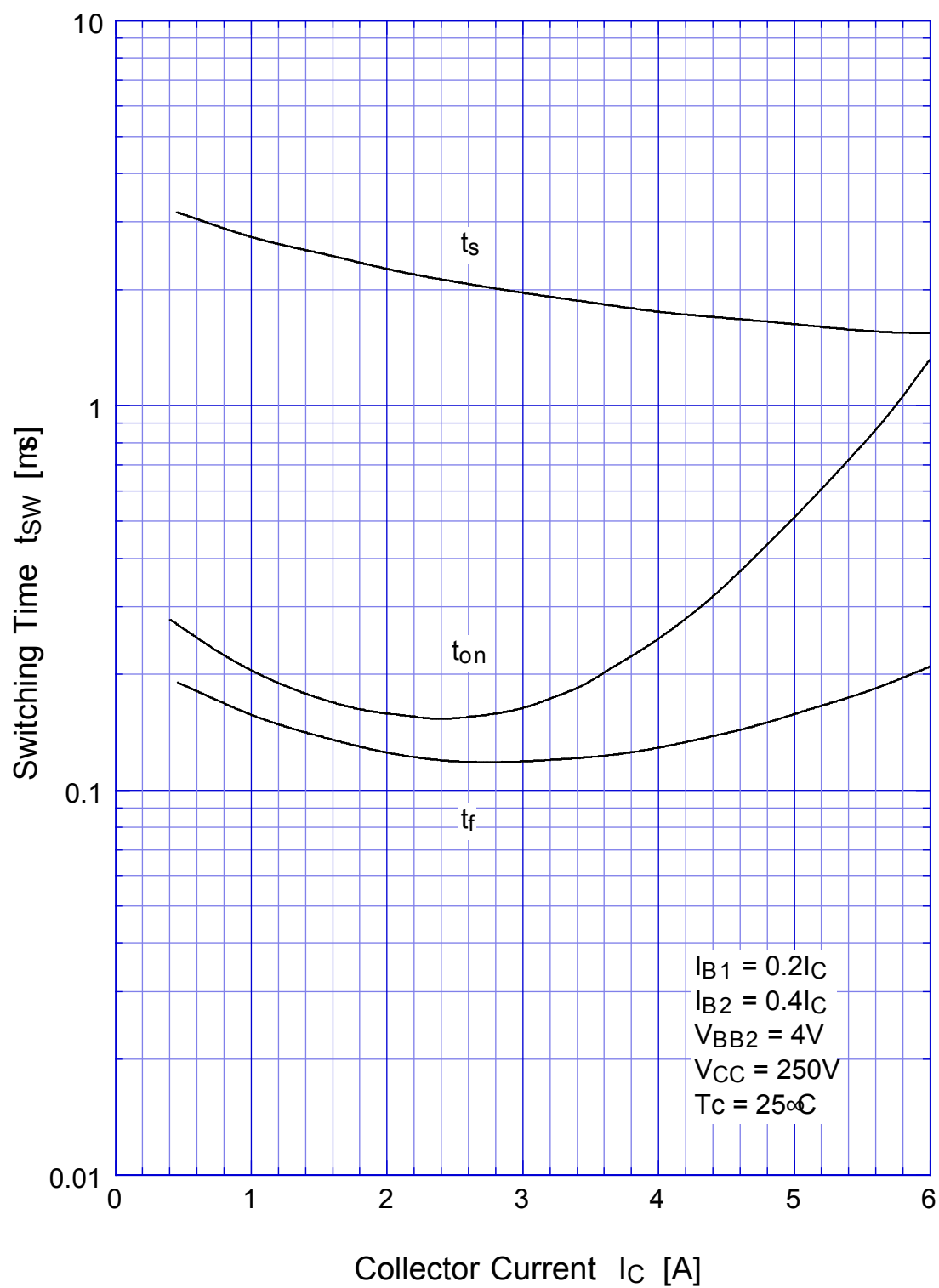
2SC4236

h_{FE} - I_C

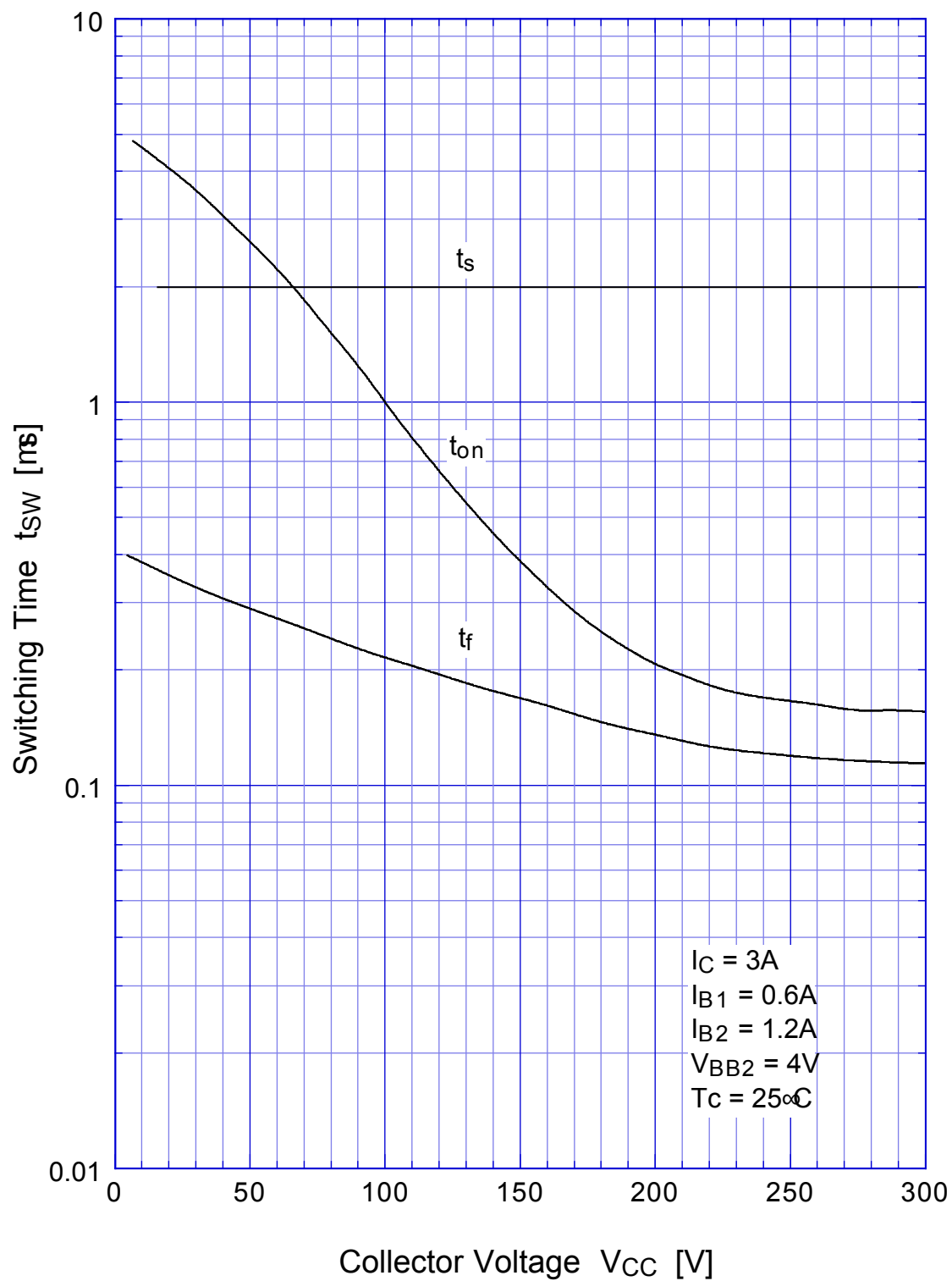


2SC4236 Saturation Voltage

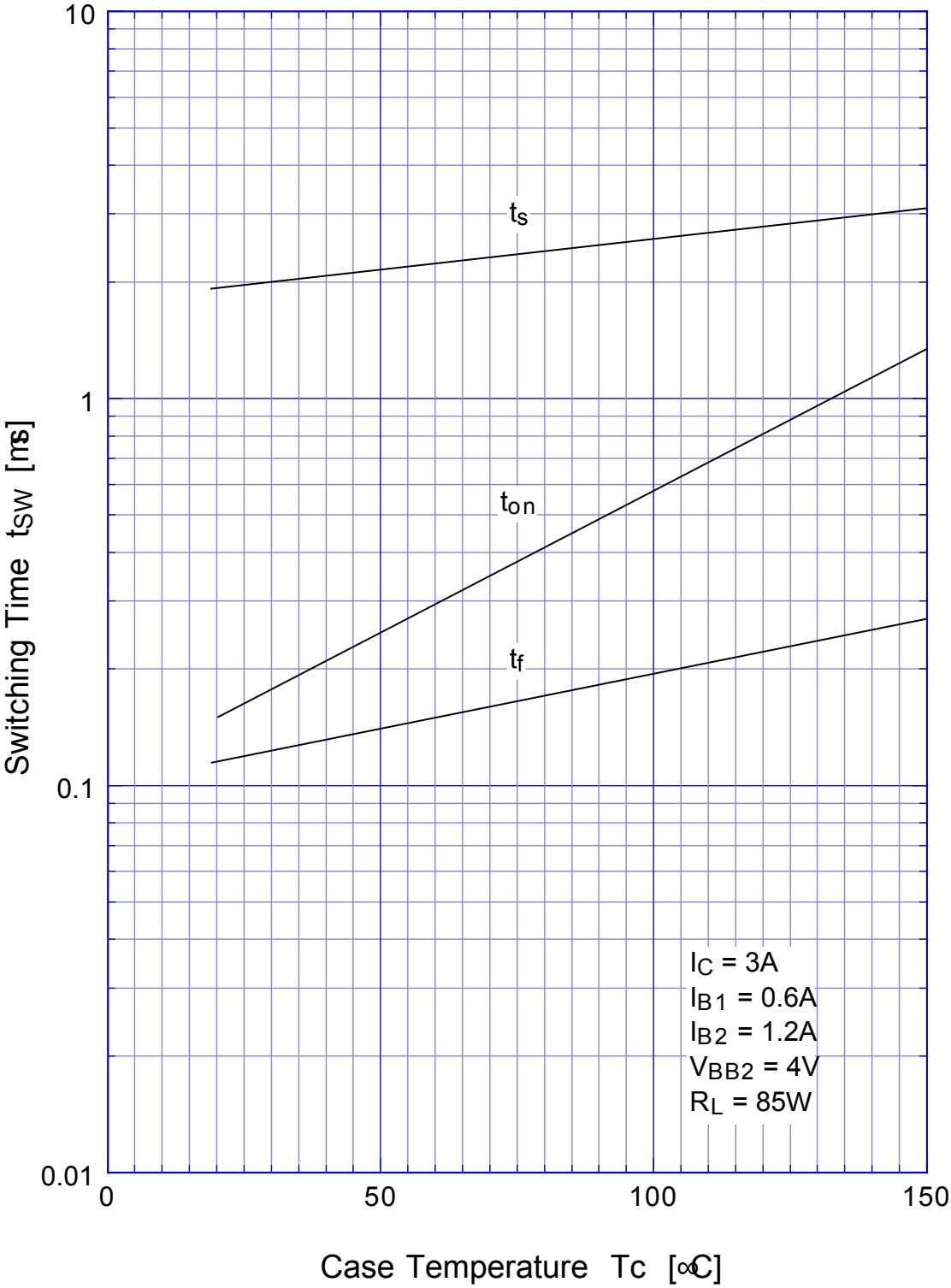


2SC4236**Switching Time - I_C** 

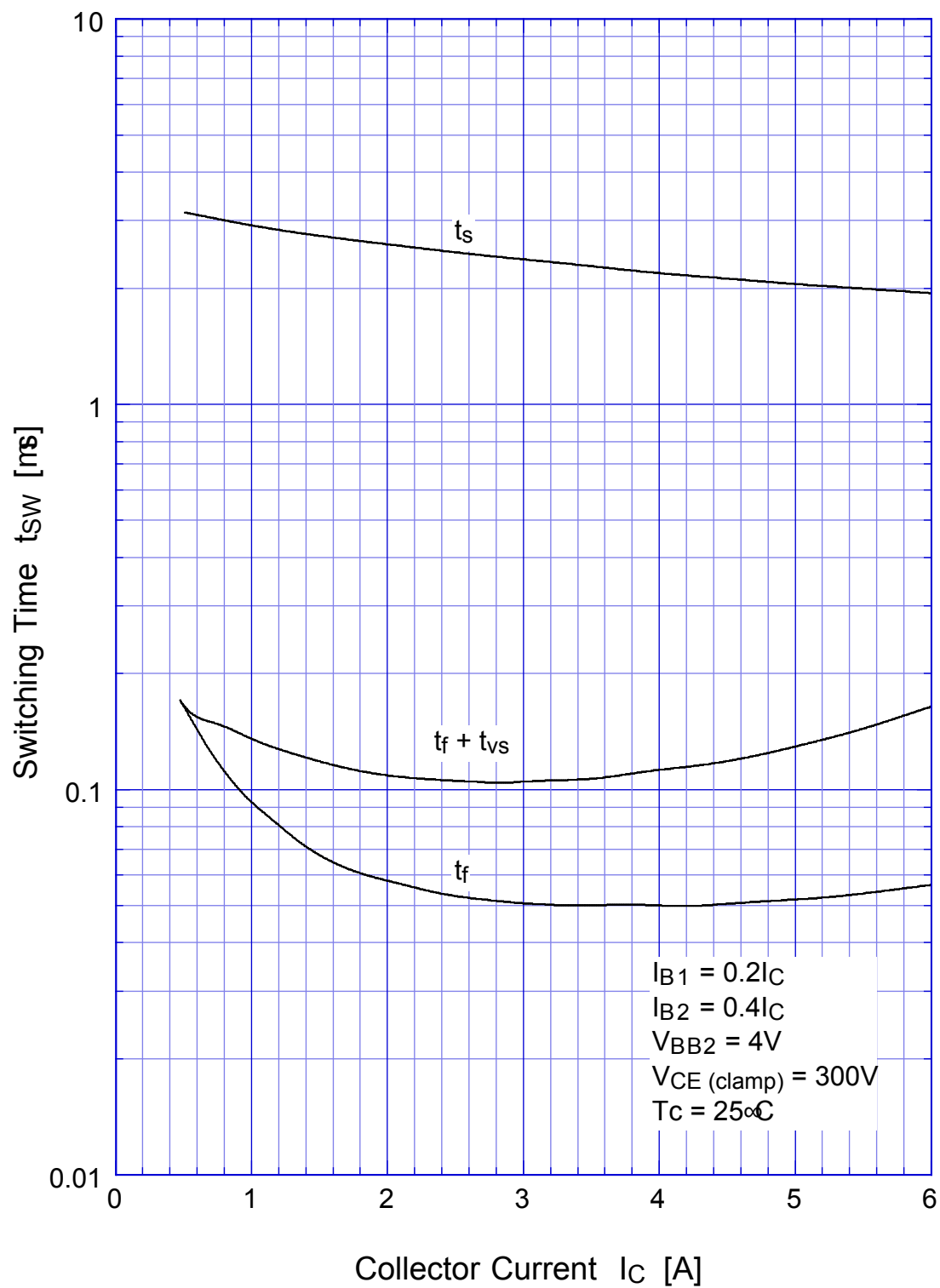
2SC4236 Switching Time - V_{CC}



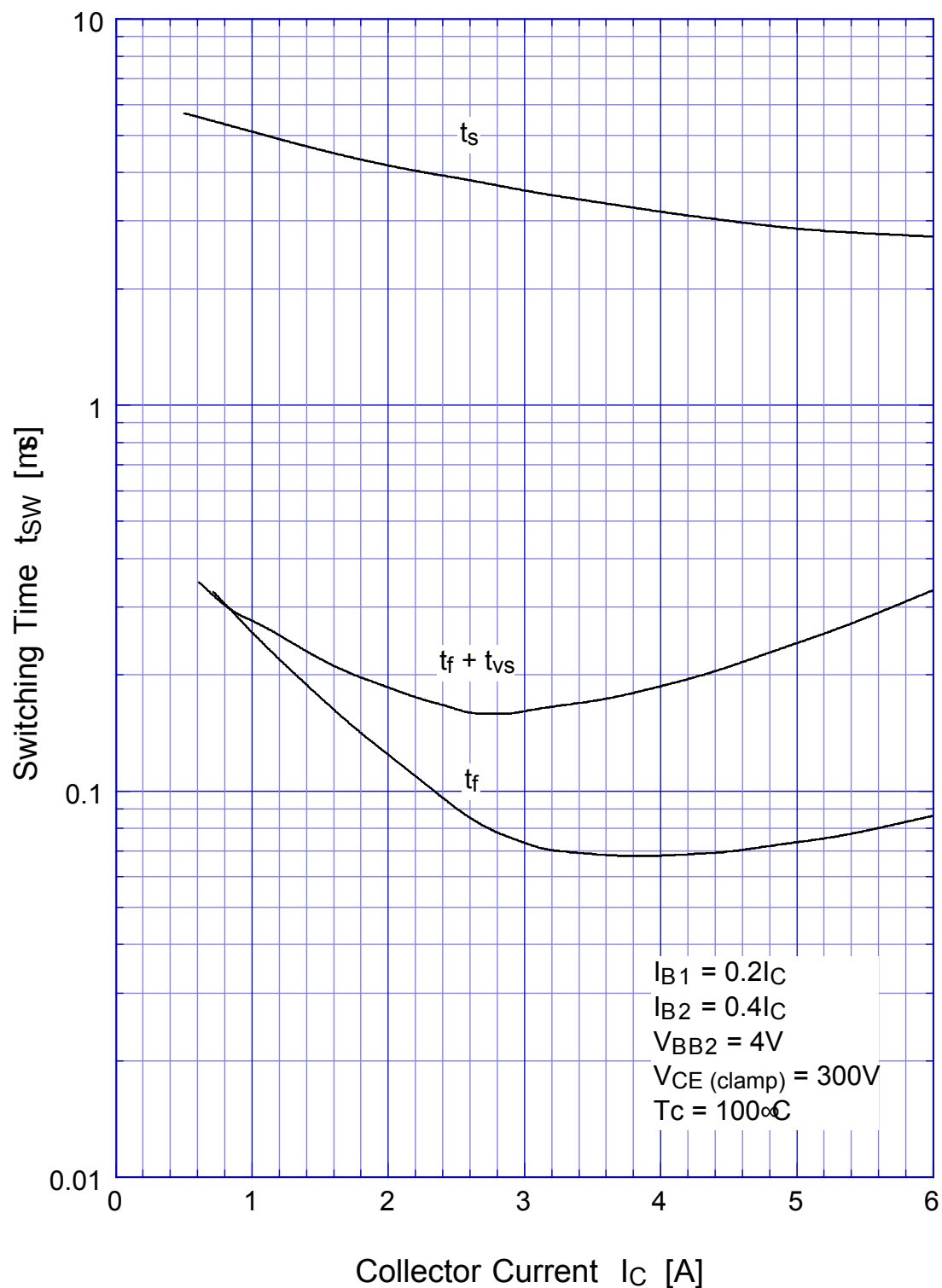
2SC4236 Switching Time - Tc



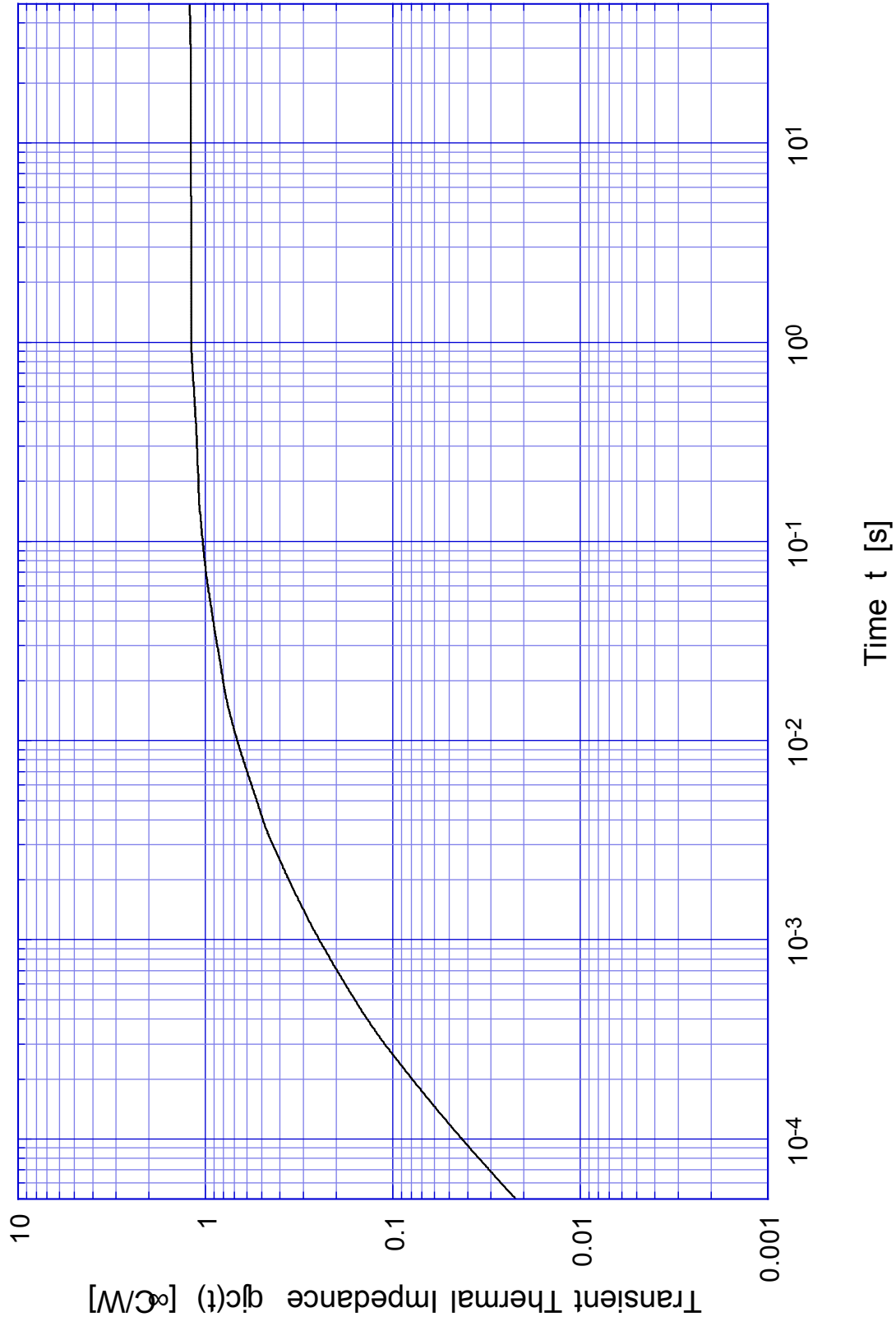
2SC4236 L-Load Switching Time - I_C

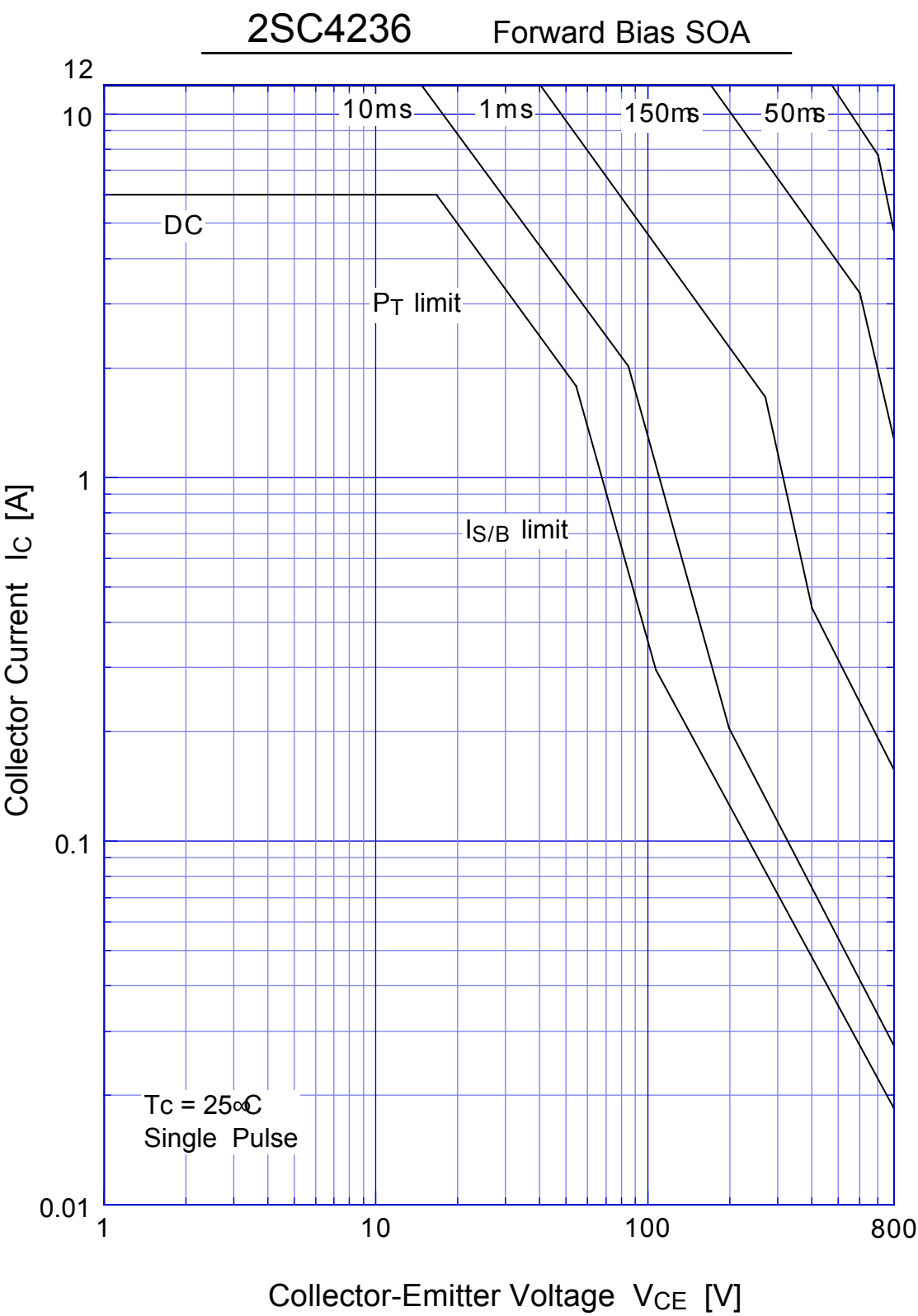


2SC4236 L-Load Switching Time - I_C (At High Temperature)

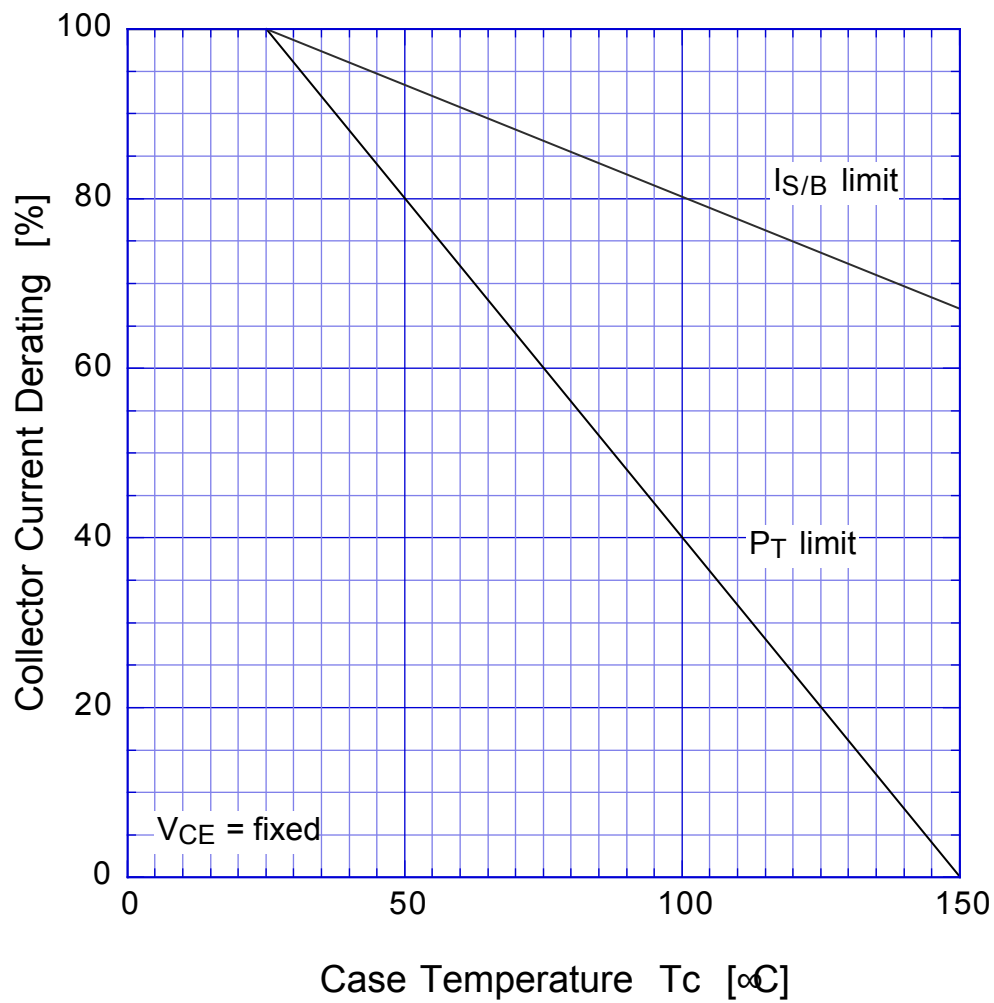


2SC4236 Transient Thermal Impedance





2SC4236 Collector Current Derating



2SC4236

Reverse Bias SOA

