

SHINDENGEN

Switching Power Transistor

HFX Series

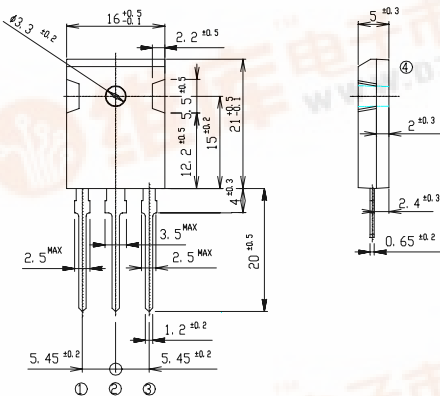
2SC4232
(T2W80HFX)

2A NPN

OUTLINE DIMENSIONS

Case : MTO-3P

Unit : mm



①: B
②: C
③: E
④: C

RATINGS

●Absolute Maximum Ratings

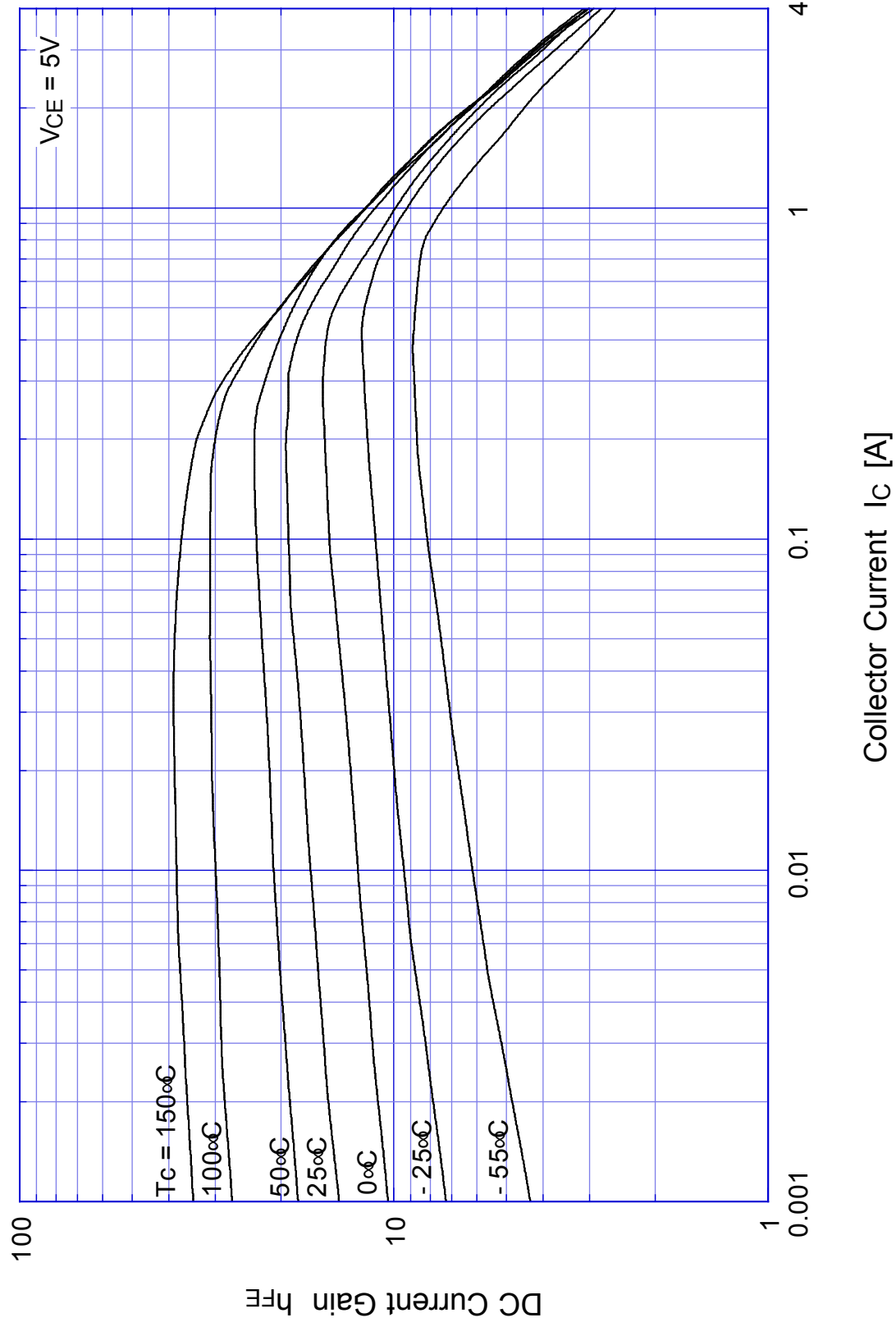
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55~150	℃
Junction Temperature	Tj		150	℃
Collector to Base Voltage	V _{CBO}		1200	V
Collector to Emitter Voltage	V _{CEO}		800	V
Emitter to Base Voltage	V _{EBO}		7	V
Collector Current DC	I _C		2	A
Collector Current Peak	I _{CP}		4	A
Base Current DC	I _B		1	A
Base Current Peak	I _{BP}		2	A
Total Transistor Dissipation	P _T	Tc = 25℃	70	W
Mounting Torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

●Electrical Characteristics (Tc=25℃)

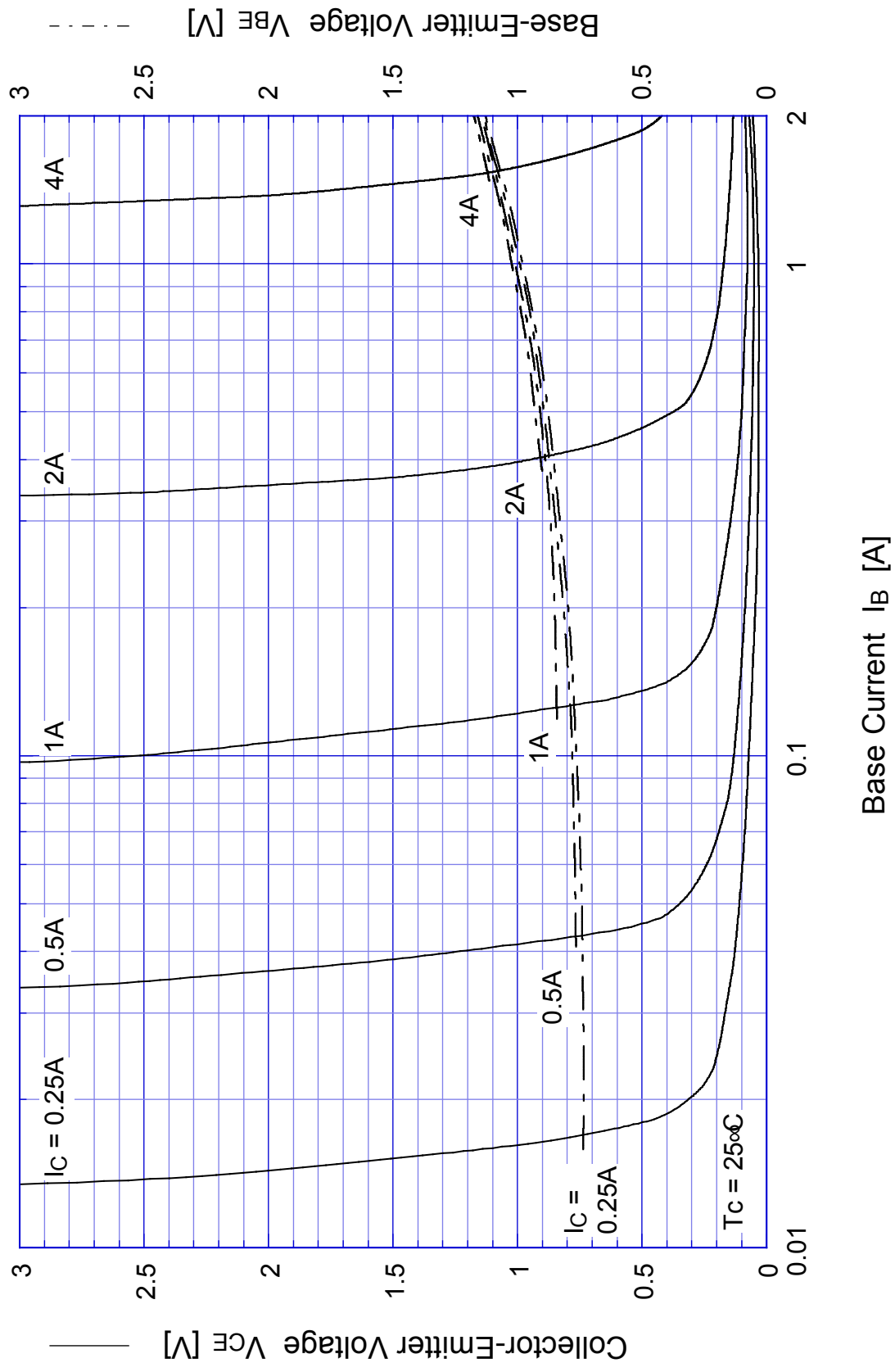
Item	Symbol	Conditions	Ratings	Unit
Collector to Emitter Sustaining Voltage	V _{CEO(sus)}	I _C = 0.1A	Min 800	V
Collector Cutoff Current	I _{CBO}	At rated Voltage	Max 0.1	mA
	I _{CEO}		Max 0.1	
Emitter Cutoff Current	I _{EBO}	At rated Voltage	Max 0.1	mA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 1A	Min 8	
	h _{FEL}	V _{CE} = 5V, I _C = 1mA	Min 7	
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C = 1A	Max 1.0	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _B = 0.2A	Max 1.5	V
Thermal Resistance	θ _{jc}	Junction to case	Max 1.7	℃/W
Transition Frequency	f _T	V _{CE} = 10V, I _C = 0.2A	TYP 8	MHz
Turn on Time	ton	I _C = 1A	Max 0.5	μs
Storage Time	ts	I _{B1} = 0.2A, I _{B2} = 0.4A	Max 3.5	
Fall Time	tf	R _L = 250 Ω, V _{BB2} = 4V	Max 0.3	

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$h_{FE} - I_C$

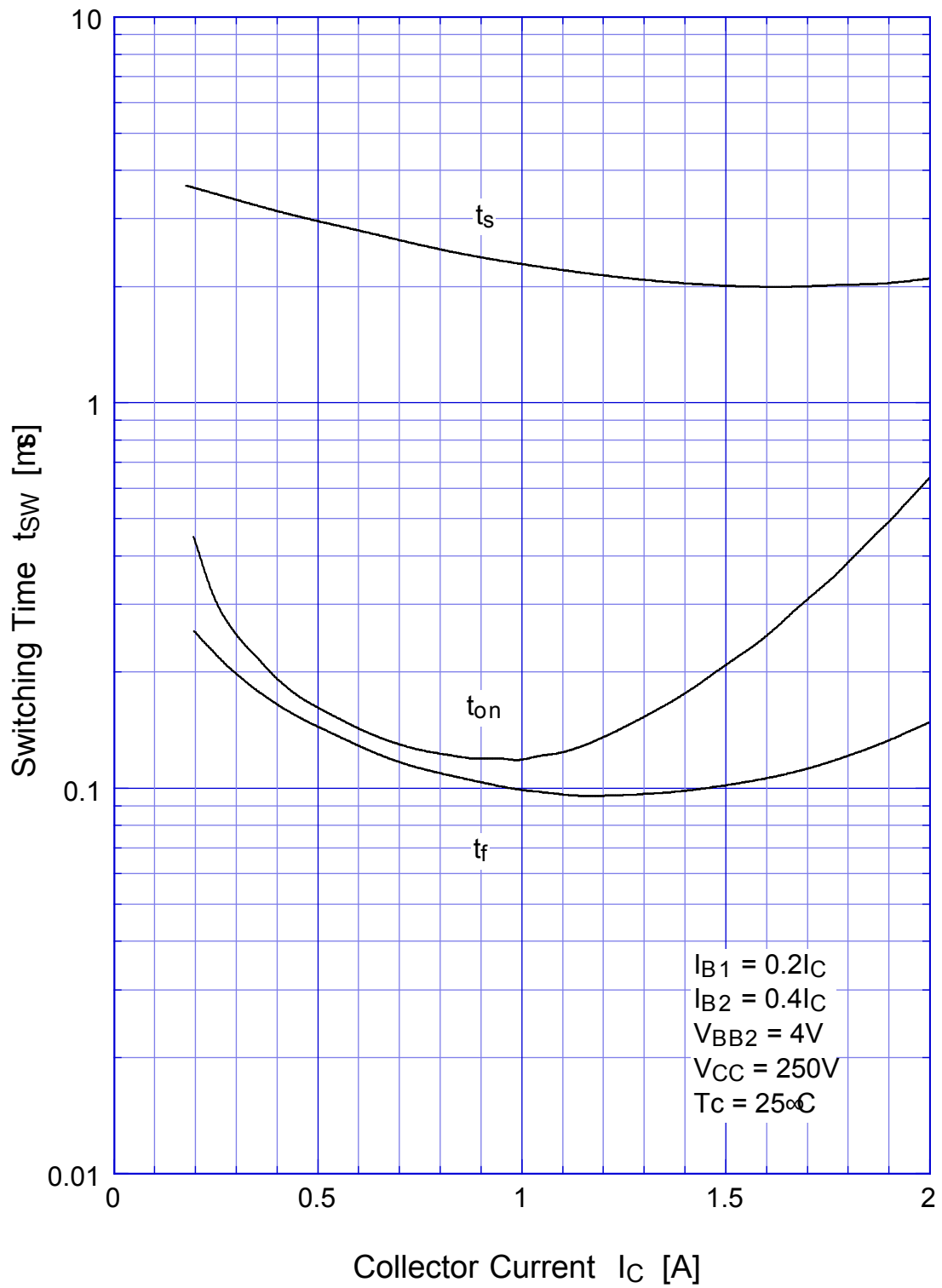


2SC4232 Saturation Voltage

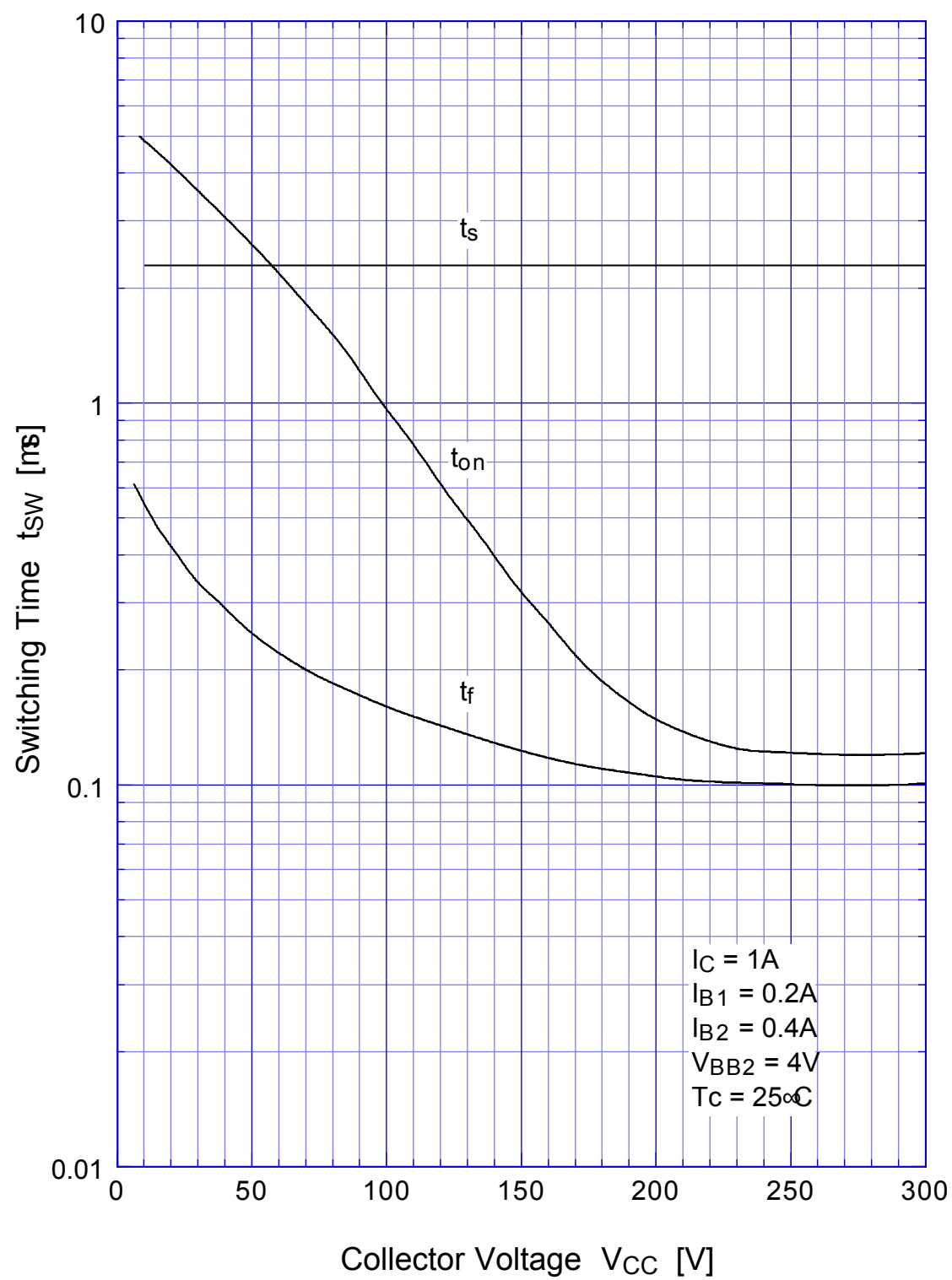


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Switching Time - I_C

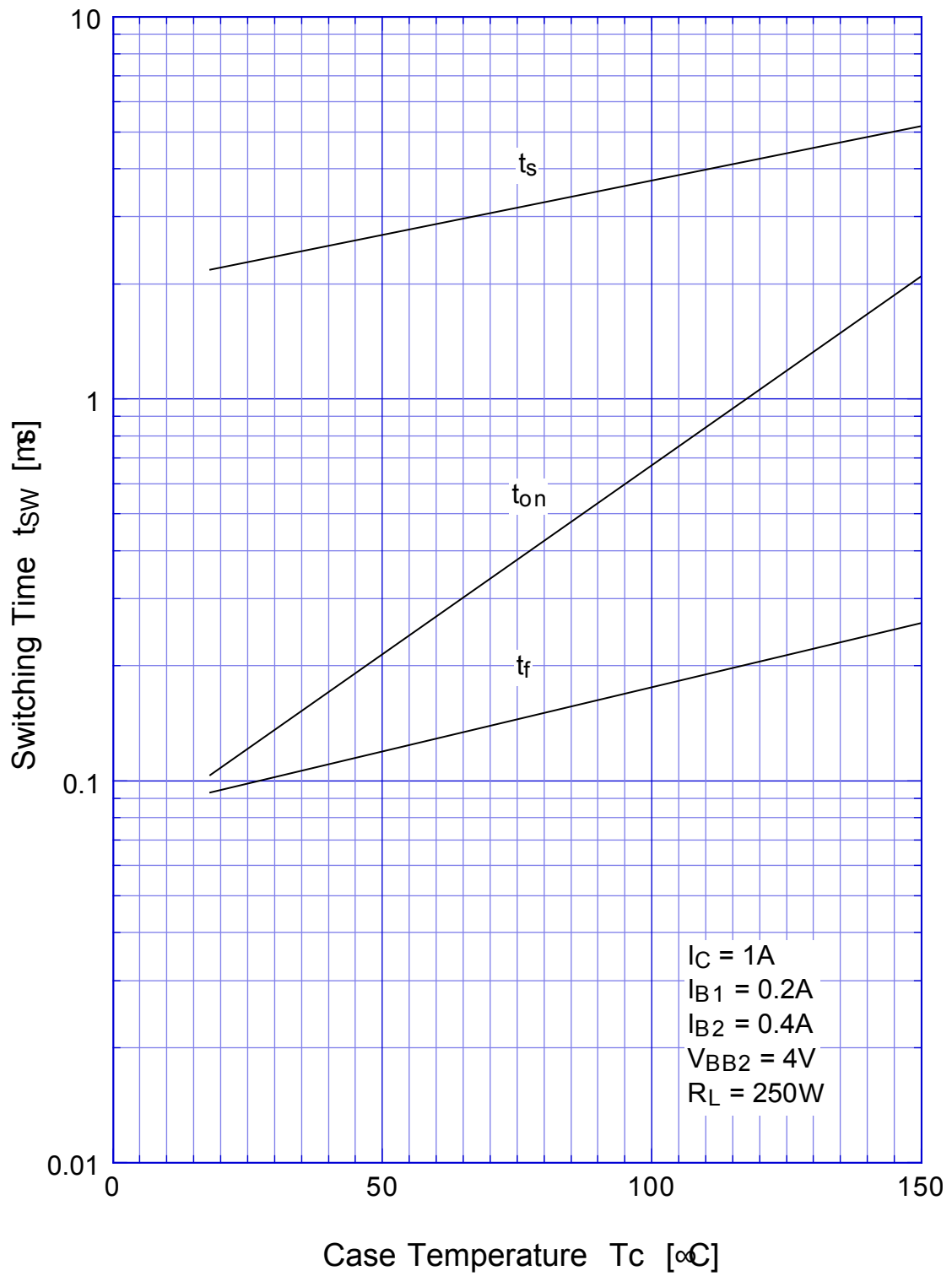


2SC4232 Switching Time - V_{CC}

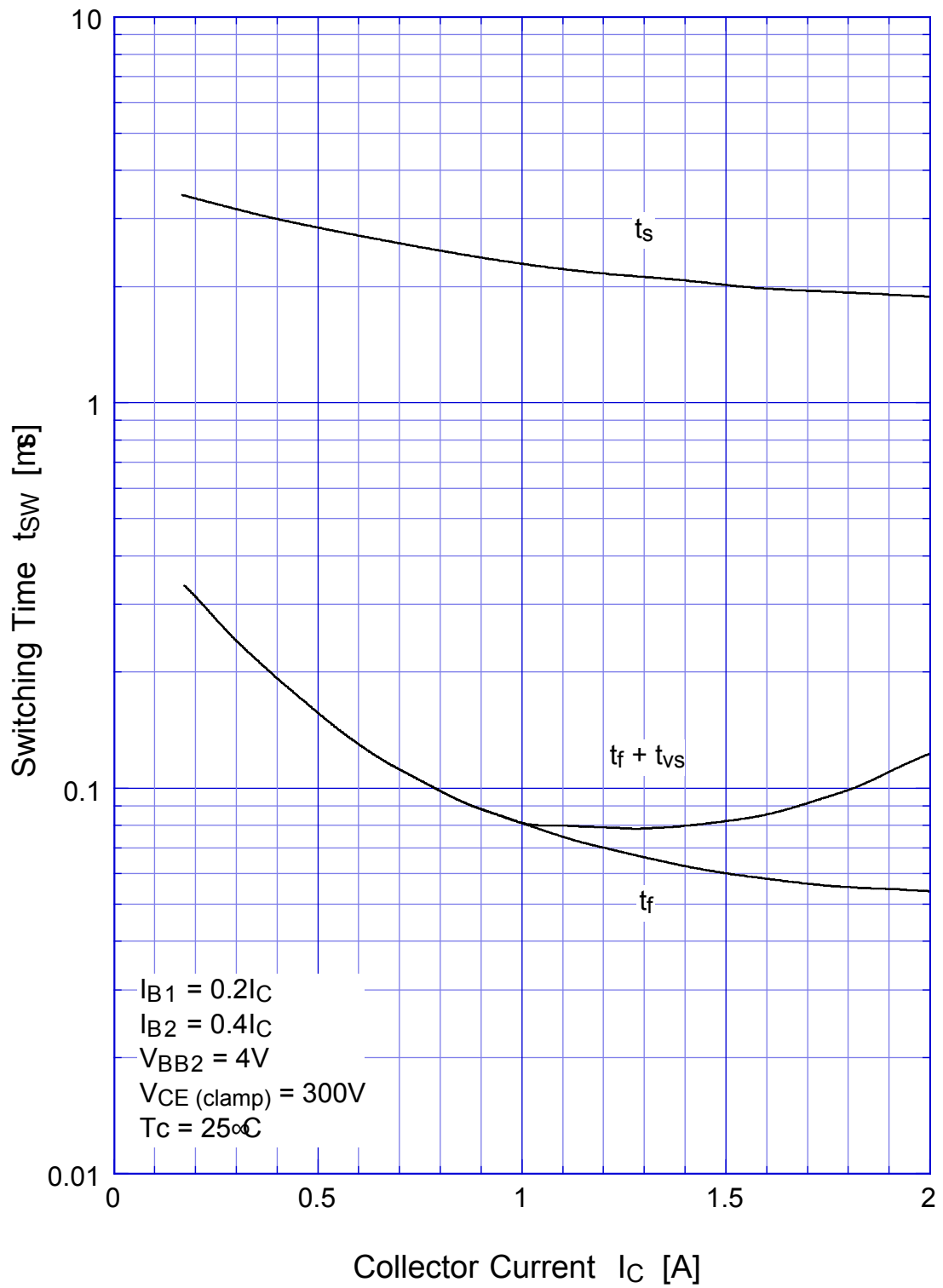


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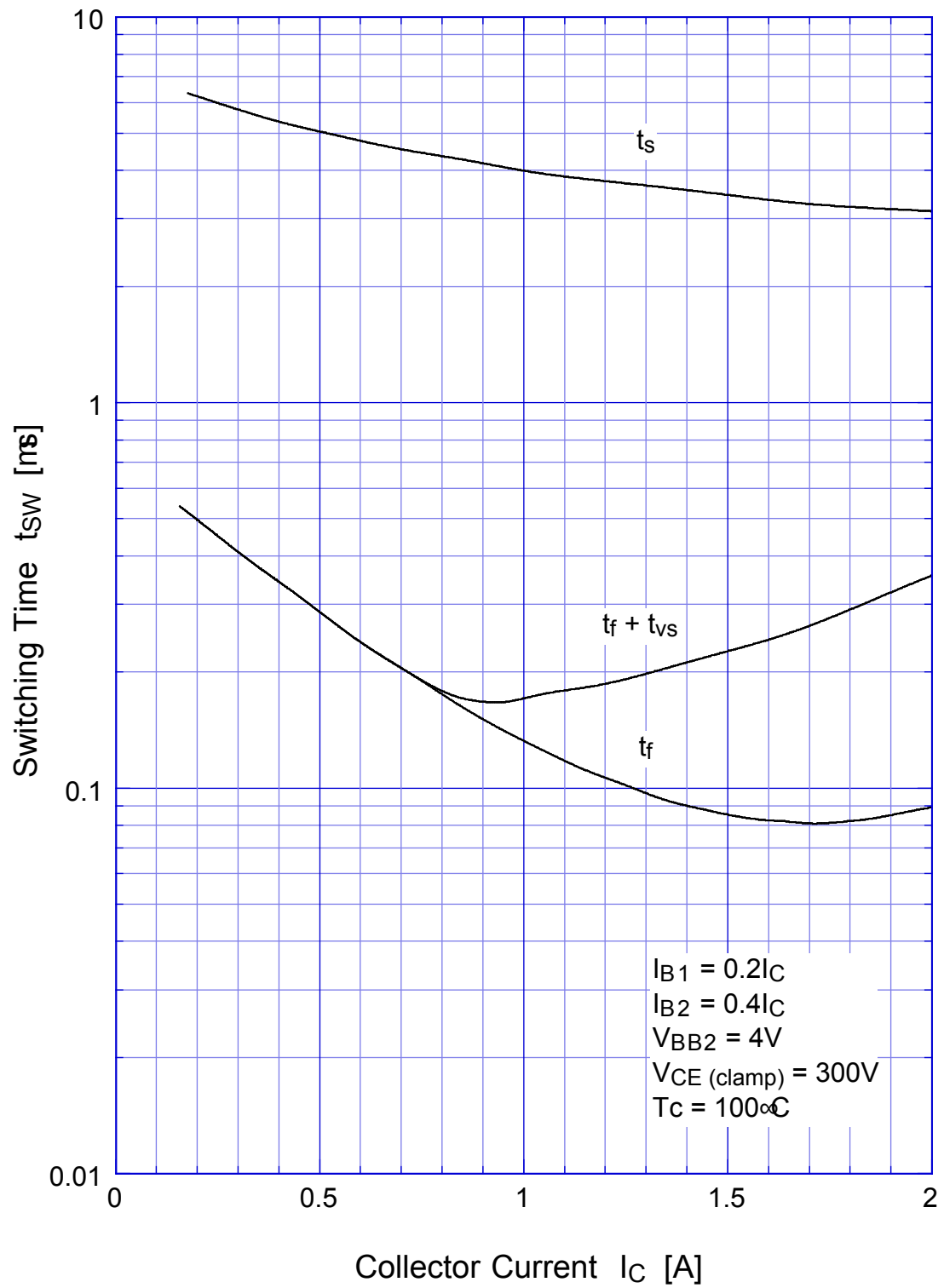
Switching Time - T_c



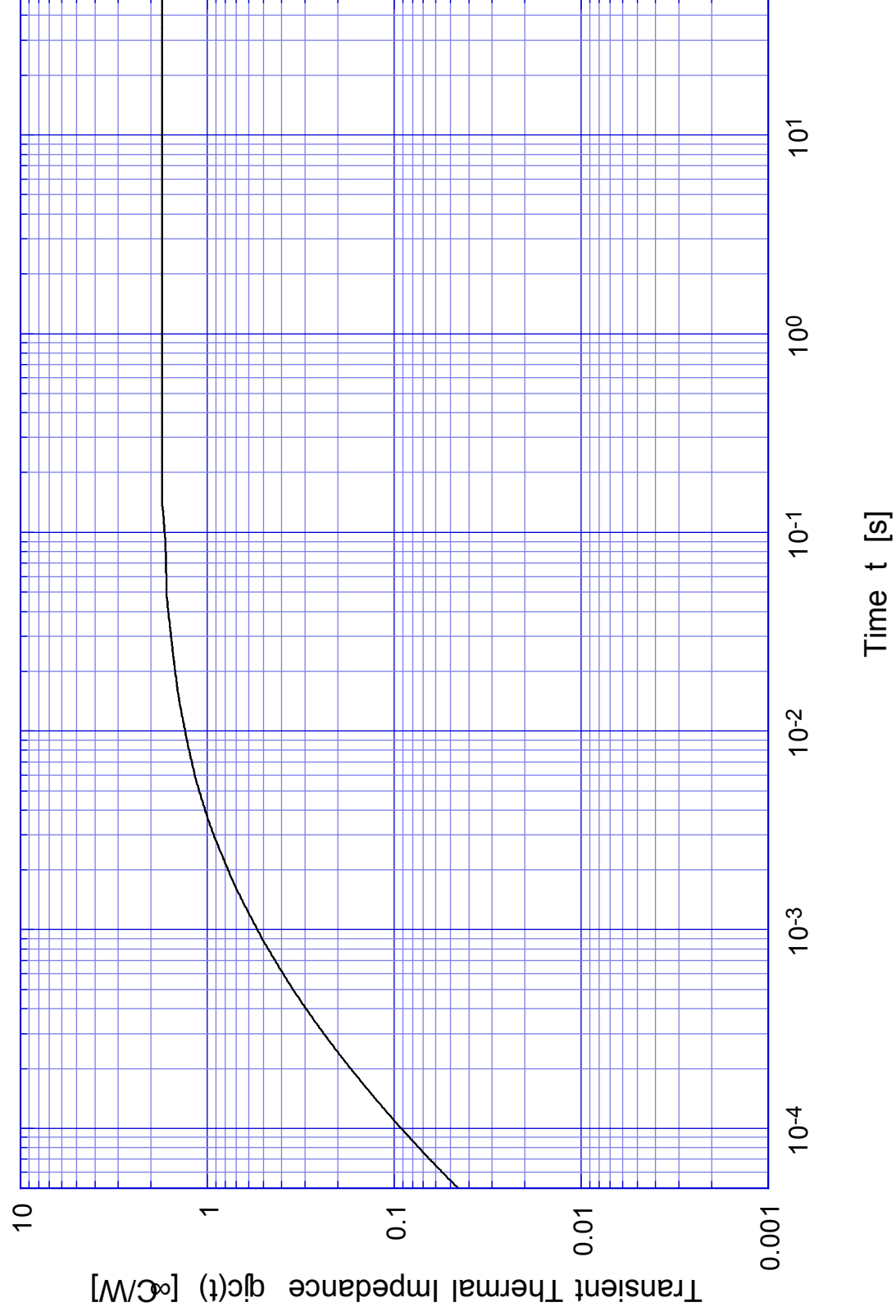
2SC4232 L-Load Switching Time - I_C



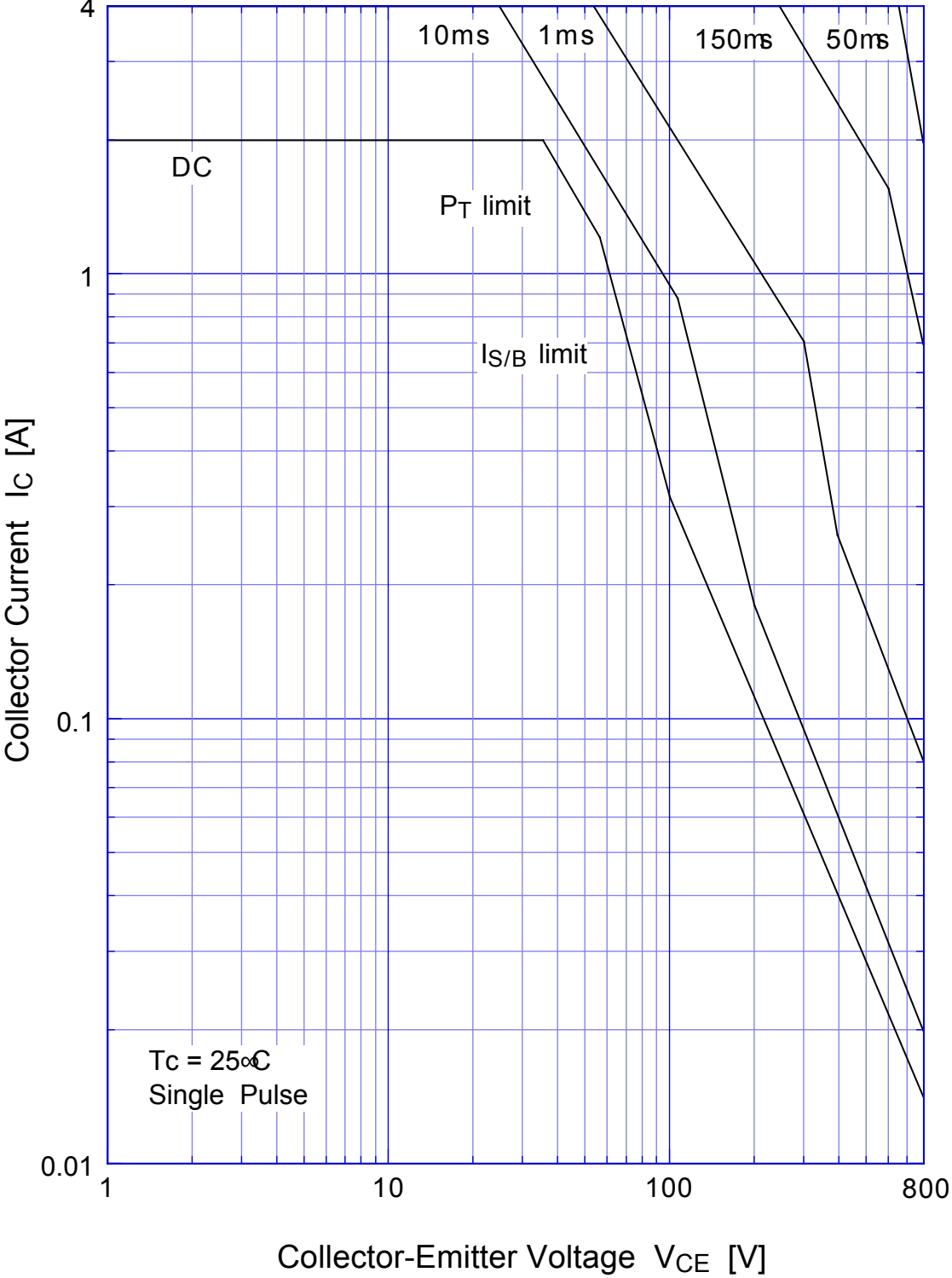
2SC4232 L-Load Switching Time - I_C (At High Temperature)



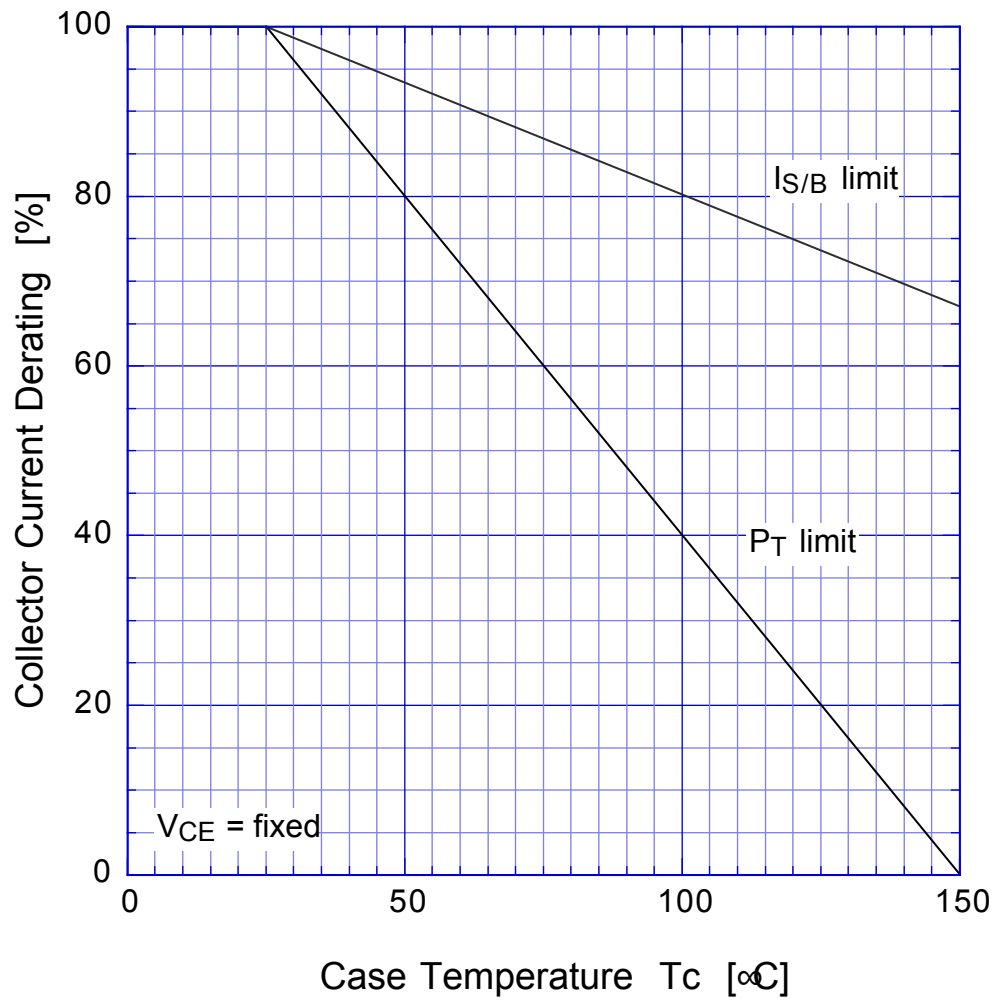
2SC4232 Transient Thermal Impedance



2SC4232 Forward Bias SOA



2SC4232 Collector Current Derating



2SC4232

Reverse Bias SOA

