

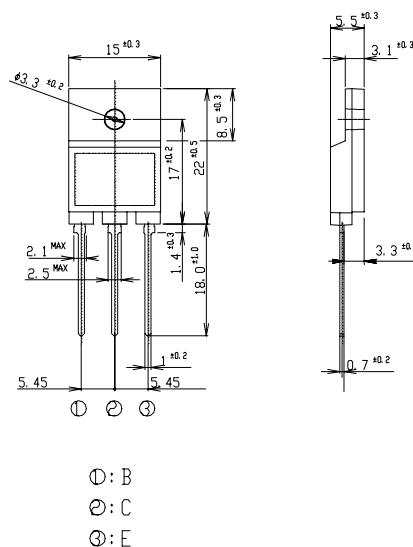
2SC4583
(TP3W80HFX)

3A NPN

OUTLINE DIMENSIONS

Case : ITO-3P

Unit : mm



RATINGS

● Absolute Maximum Ratings

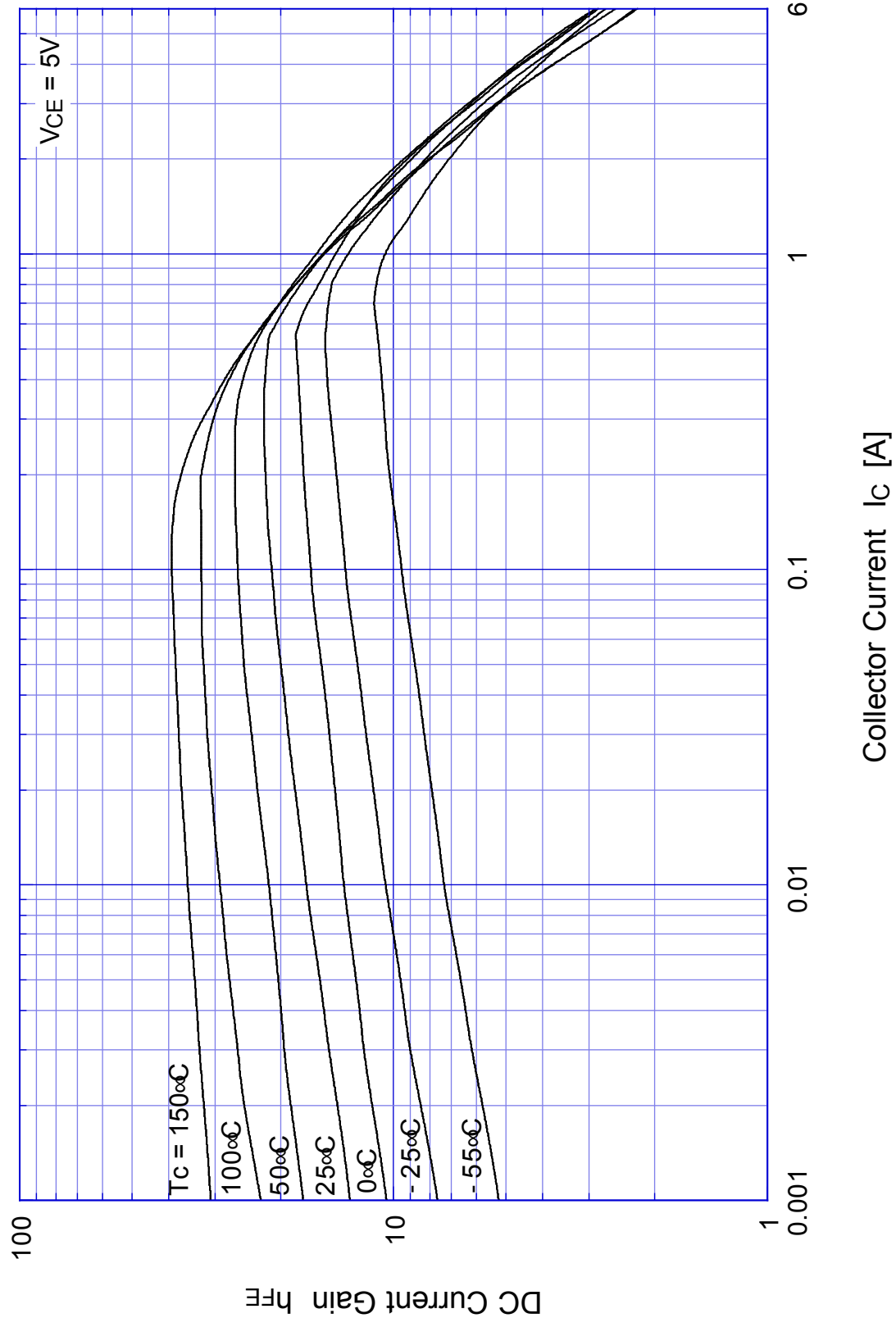
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55~150	°C
Junction Temperature	T _j		150	°C
Collector to Base Voltage	V _{CBO}		1200	V
Collector to Emitter Voltage	V _{CEO}		800	V
Emitter to Base Voltage	V _{EBO}		7	V
Collector Current DC	I _C		3	A
Collector Current Peak	I _{CP}		6	
Base Current DC	I _B		1	A
Base Current Peak	I _{BP}		2	
Total Transistor Dissipation	P _T	T _c = 25°C	50	W
Dielectric Strength	V _{dis}	Terminals to cased, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

● Electrical Characteristics (T_c=25°C)

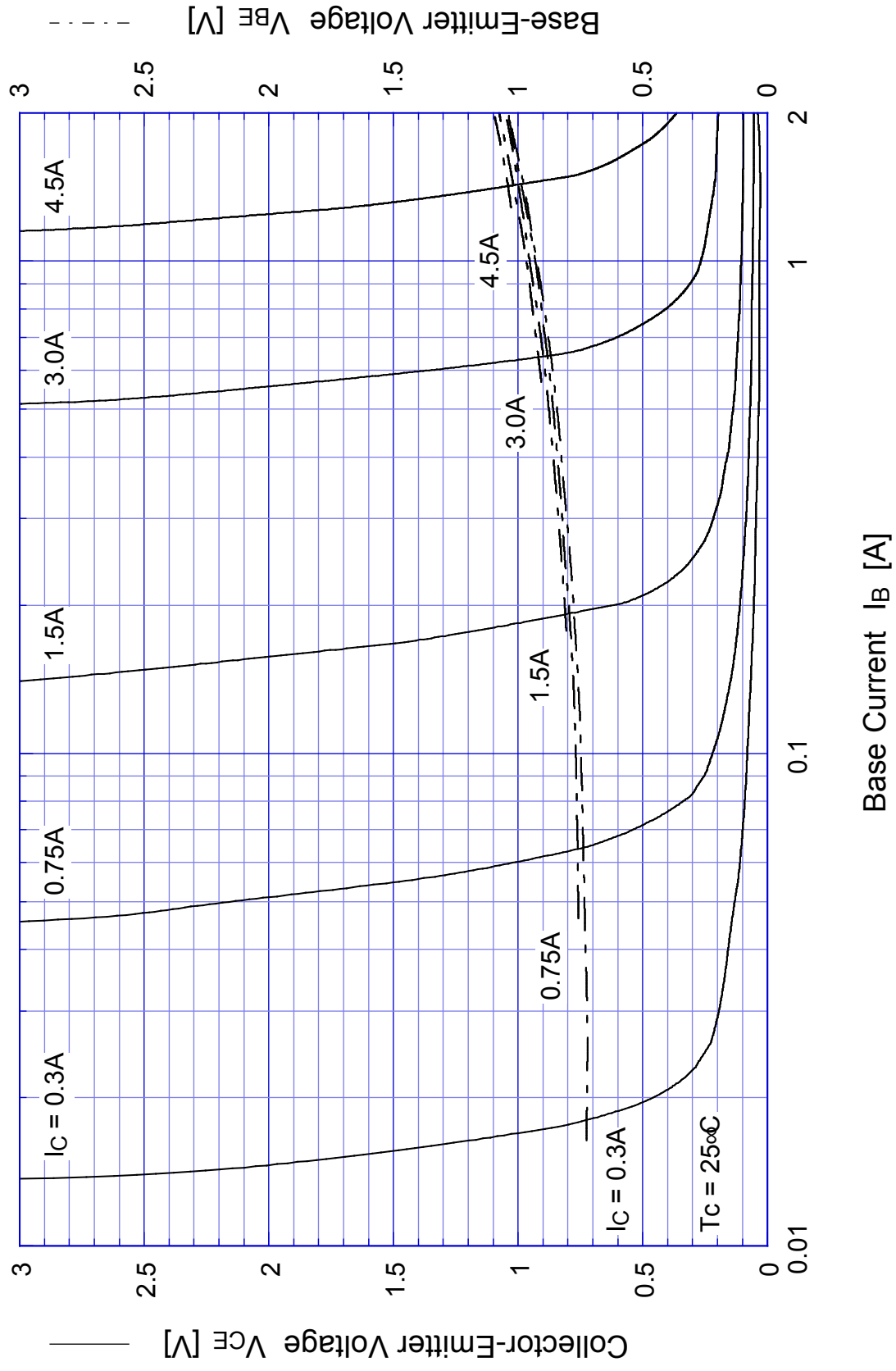
Item	Symbol	Conditions	Ratings	Unit
Collector to Emitter Sustaining Voltage	V _{CEO(sus)}	I _C = 0.1A	Min 800	V
Collector Cutoff Current	I _{CBO}	At rated Voltage	Max 0.1	mA
	I _{CEO}		Max 0.1	
Emitter Cutoff Current	I _{EBO}	At rated Voltage	Max 0.1	mA
DC Current Gain	h _{FE}	V _{CE} = 5V, I _C = 1.5A	Min 8	
	h _{FEL}	V _{CE} = 5V, I _C = 1mA	Min 7	
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C = 1.5A	Max 1.0	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _B = 0.3A	Max 1.5	V
Thermal Resistance	θ _{jc}	Junction to case	Max 2.5	°C/W
Transition Frequency	f _T	V _{CE} = 10V, I _C = 0.3A	TYP 8	MHz
Turn on Time	ton	I _C = 1.5A	Max 0.5	μs
Storage Time	ts	I _{B1} = 0.3A, I _{B2} = 0.6A	Max 3.5	
Fall Time	tf	R _L = 167 Ω, V _{BB2} = 4V	Max 0.3	

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$h_{FE} - I_C$

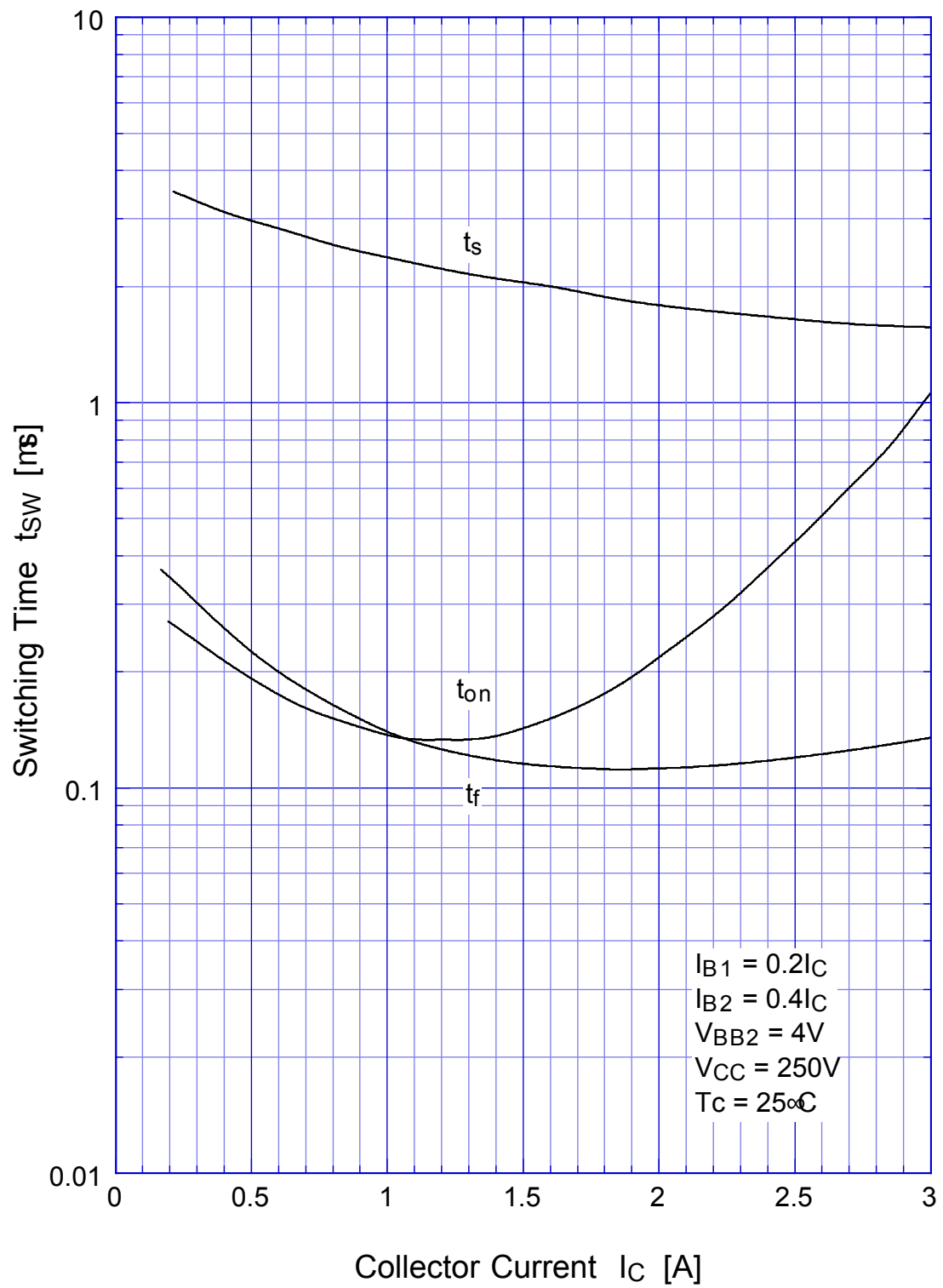


2SC4583 Saturation Voltage



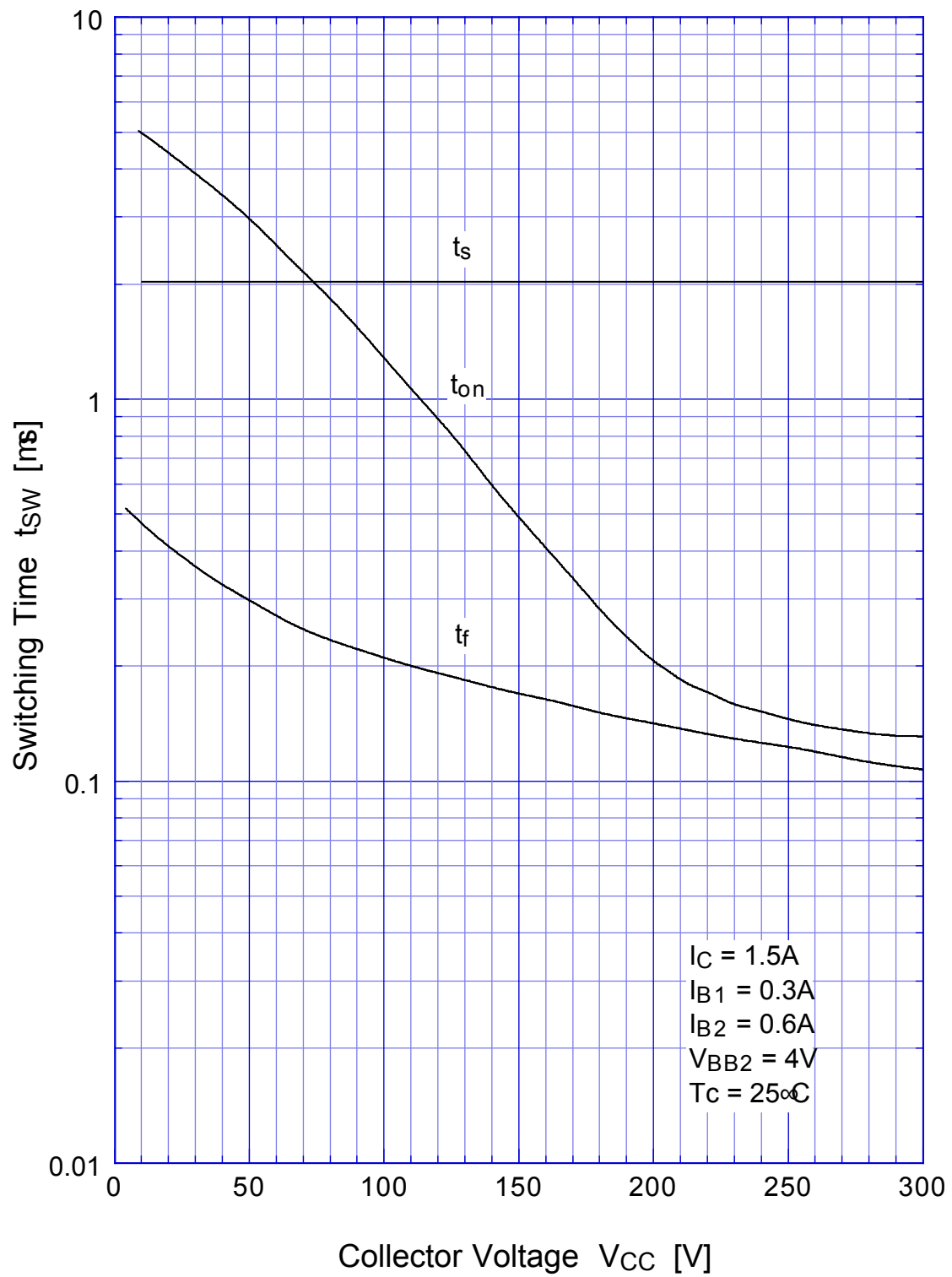
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Switching Time - I_C



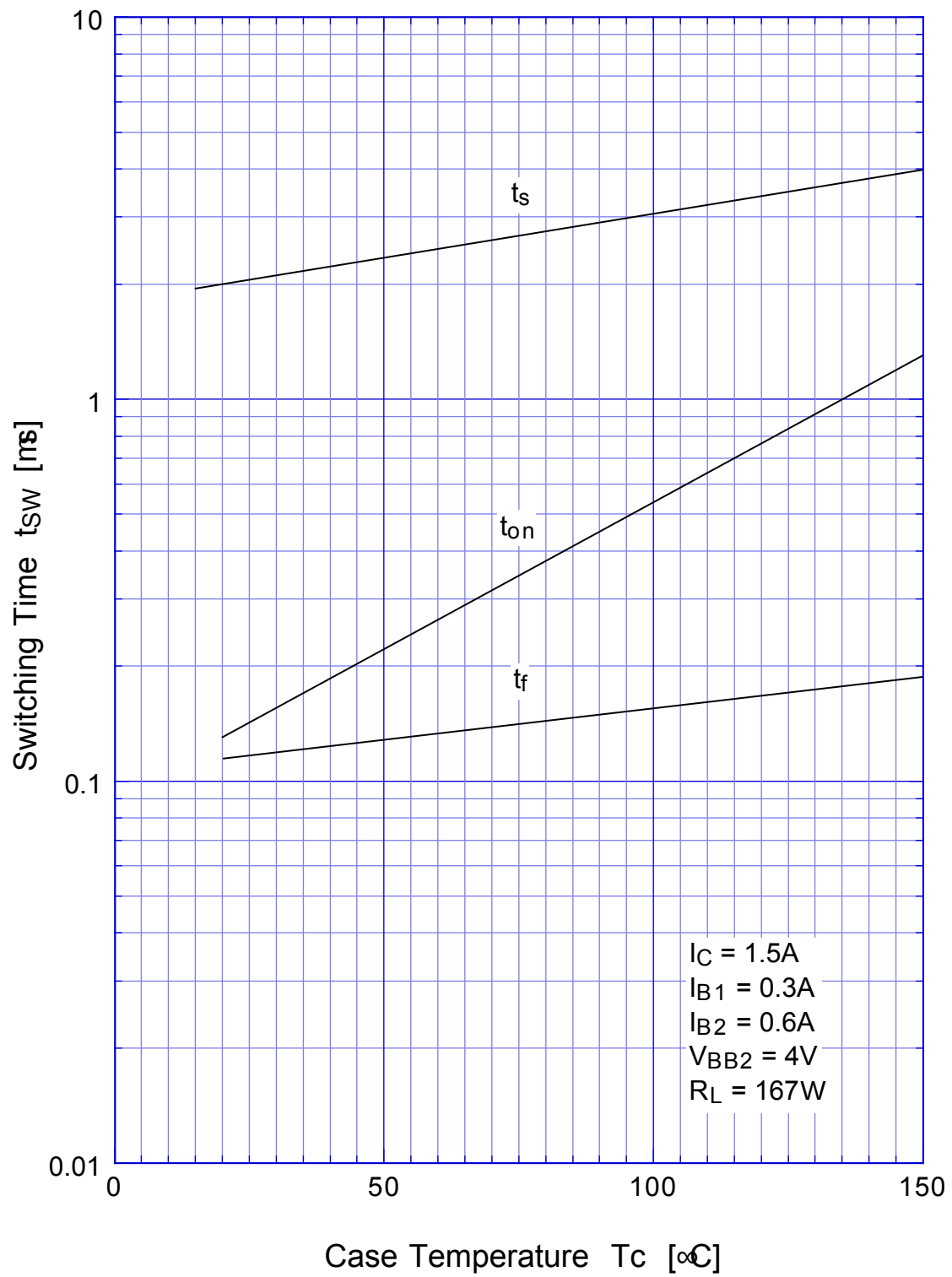
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Switching Time - V_{CC}

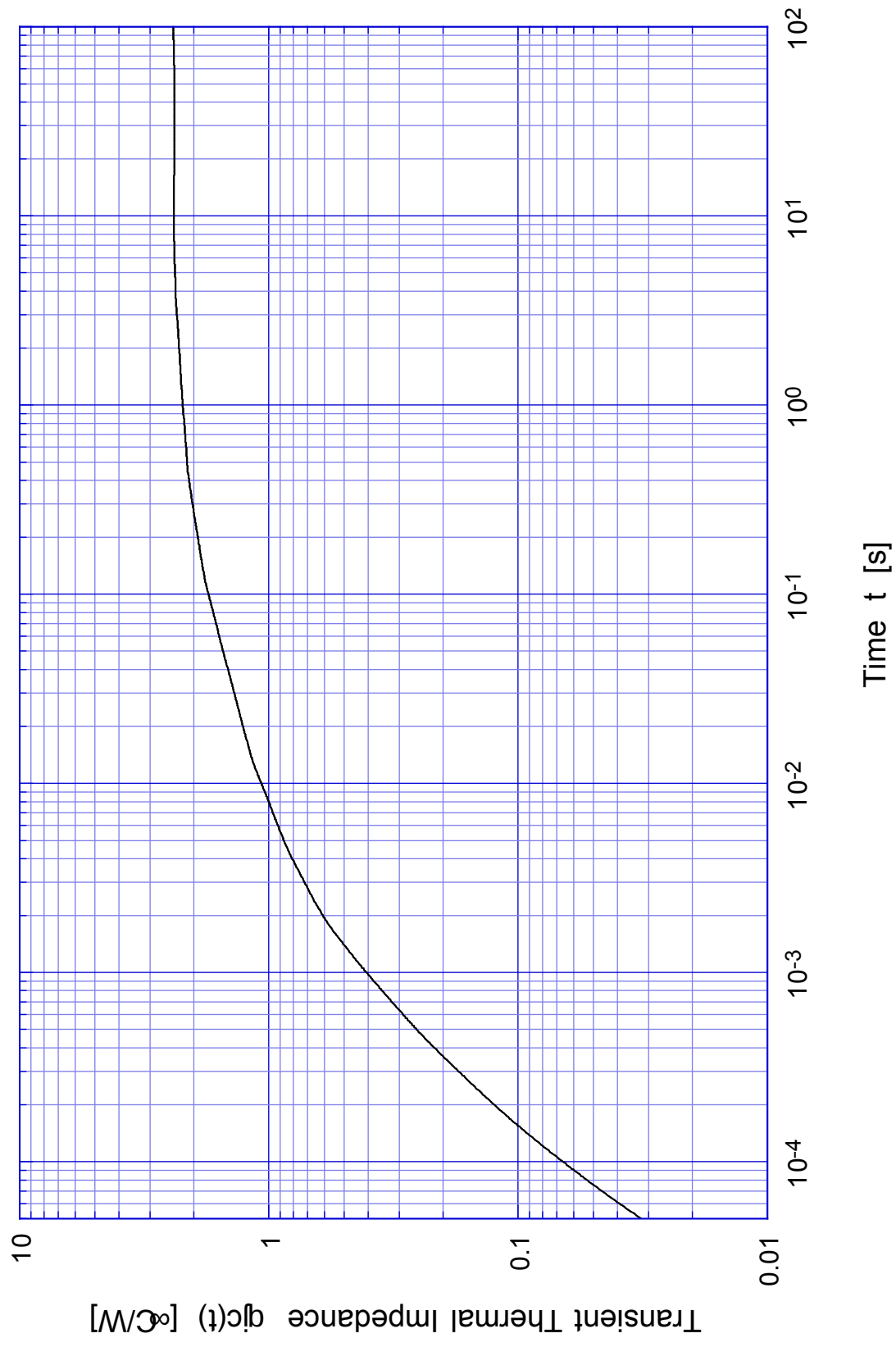


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Switching Time - T_c

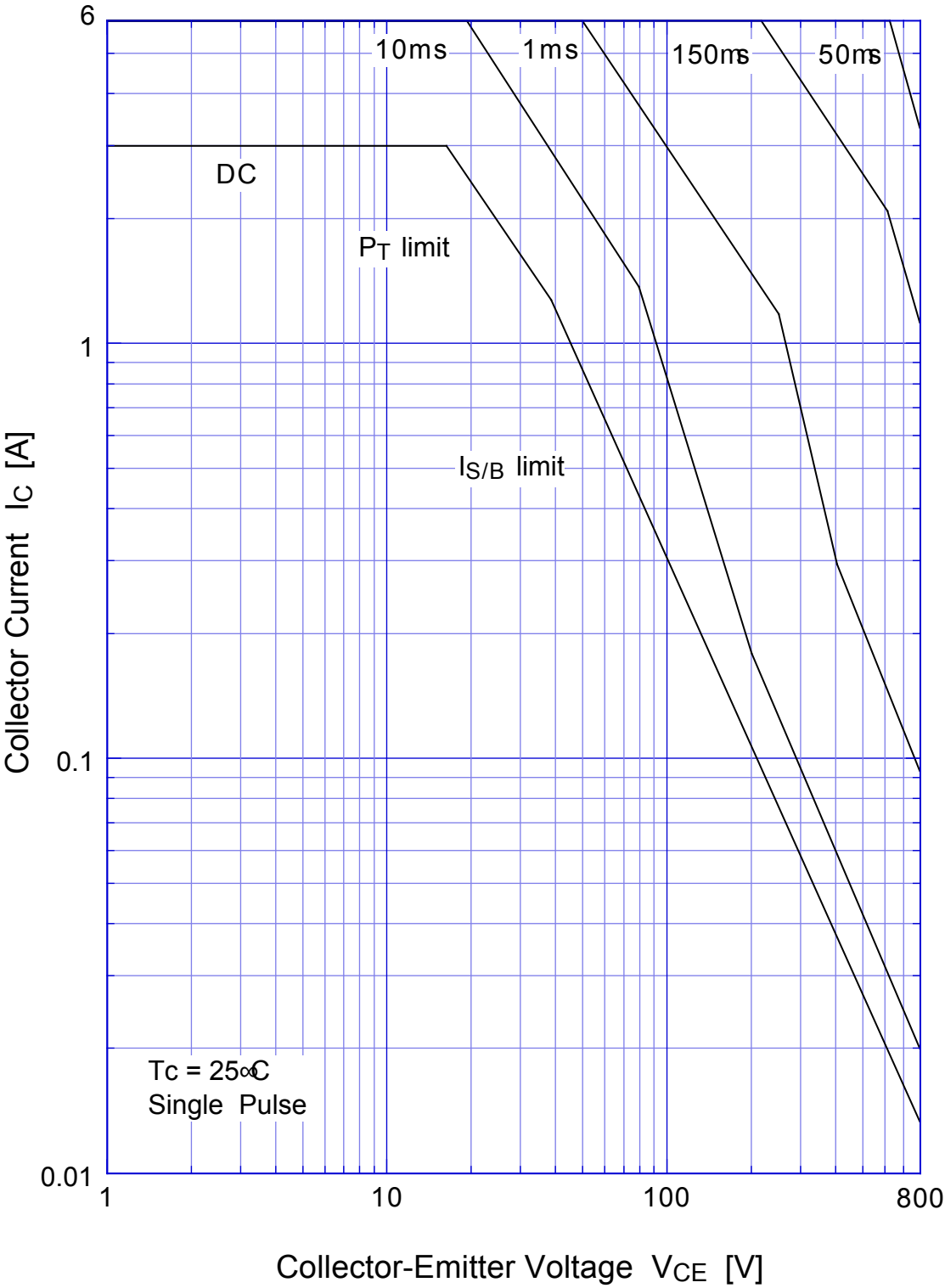


2SC4583 Transient Thermal Impedance



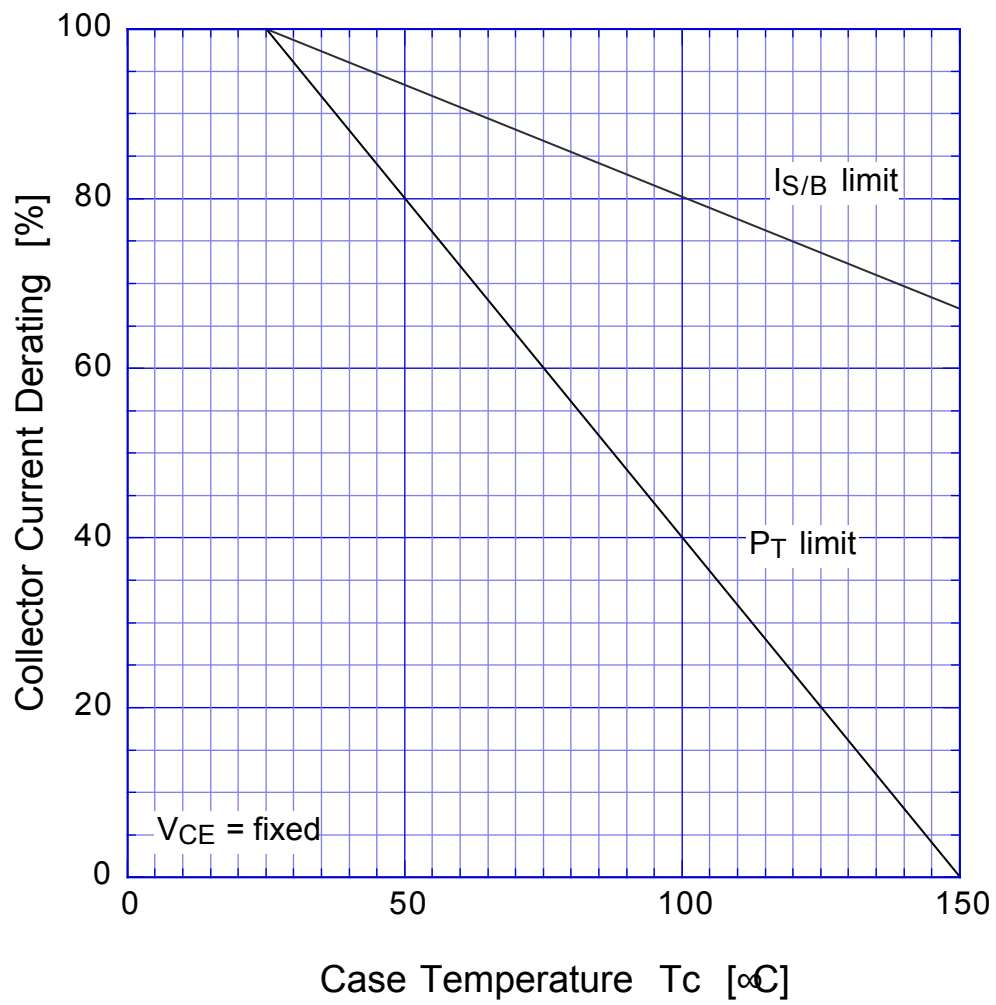
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Forward Bias SOA



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Collector Current Derating



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Reverse Bias SOA

