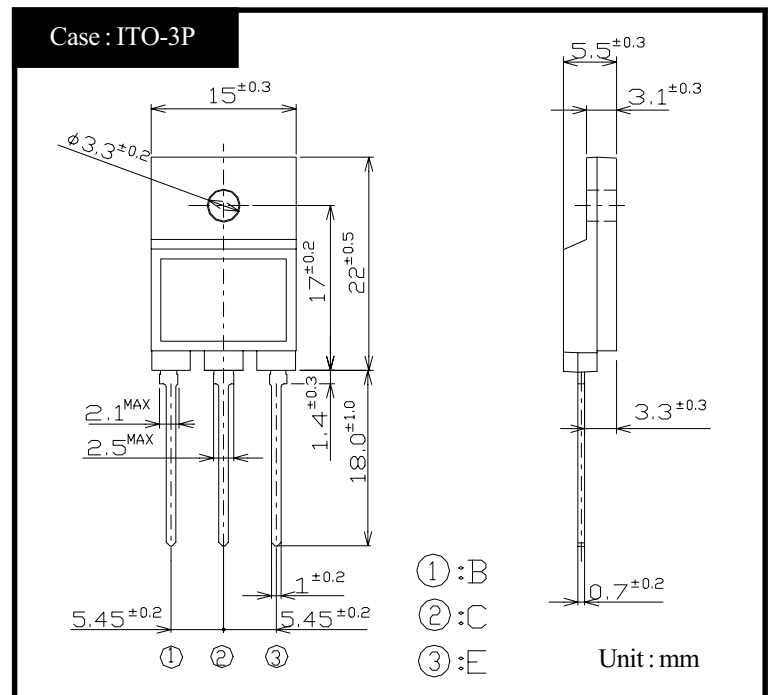


2SC4585 (TP10W80HFX)

10A NPN

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings

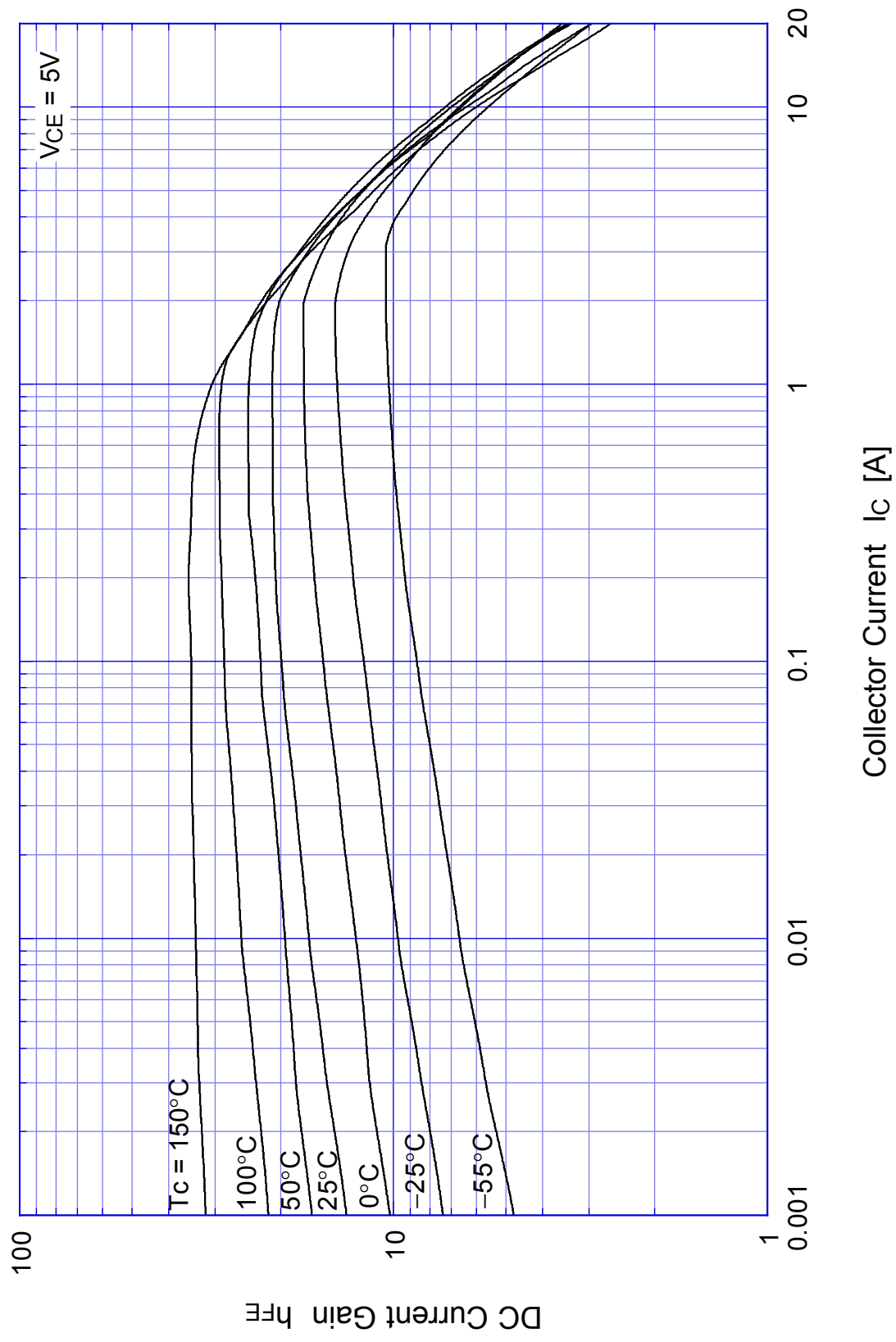
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55~150	°C
Junction Temperature	T _j		150	°C
Collector to Base Voltage	V _{CBO}		1200	V
Collector to Emitter Voltage	V _{CEO}		800	V
Emitter to Base Voltage	V _{EBO}		7	V
Collector Current DC	I _C		10	A
Collector Current Peak	I _{CP}		20	
Base Current DC	I _B		4	A
Base Current Peak	I _{BP}		8	
Total Transistor Dissipation	P _T	T _C = 25°C	85	W
Dielectric Strength	V _{dis}	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

●Electrical Characteristics (Tc=25°C)

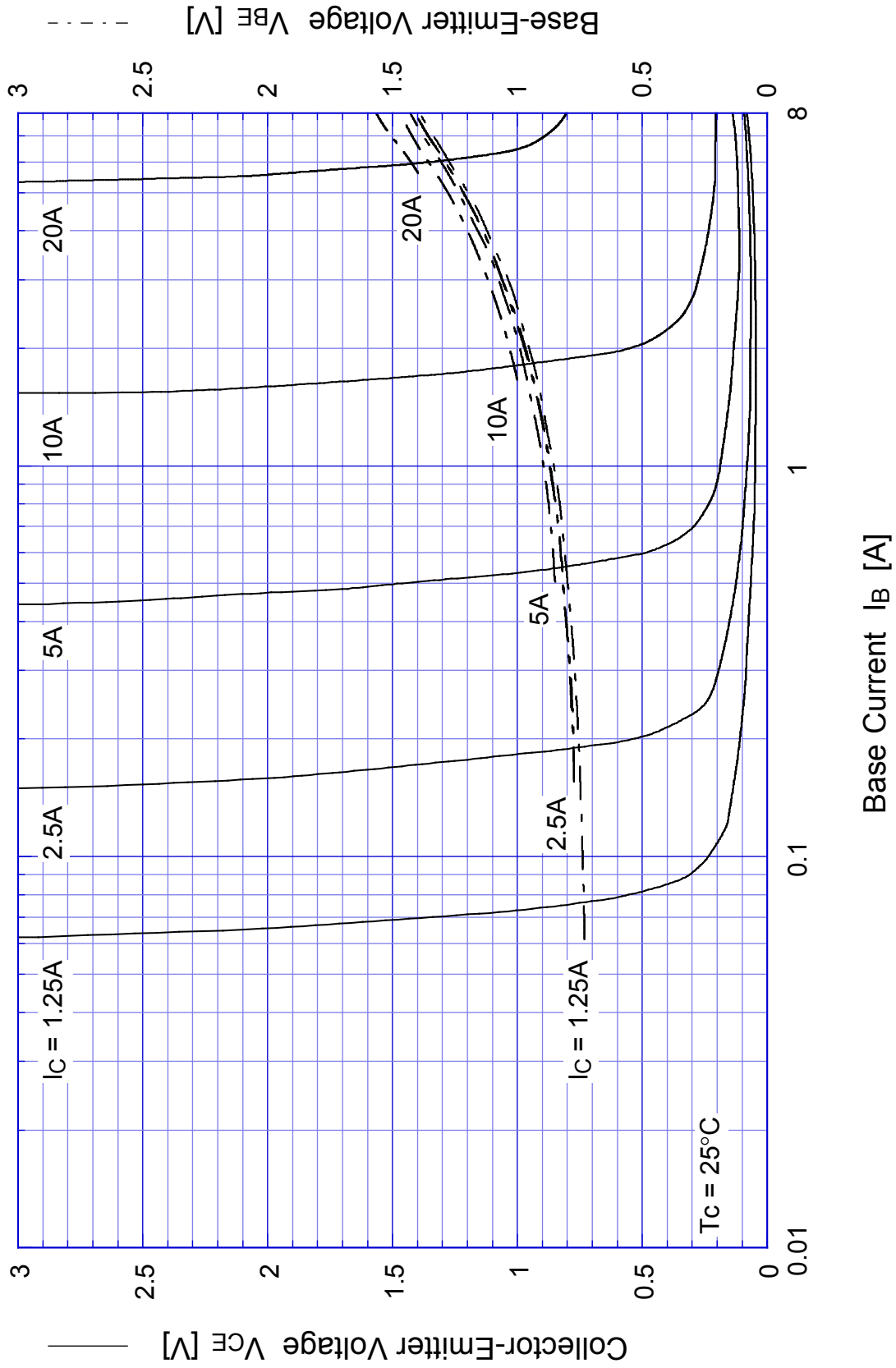
Item	Symbol	Conditions	Ratings	Unit
Collector to Emitter Sustaining Voltage	$V_{CEO}(sus)$	$I_C = 0.2A$	Min 800	V
Collector Cutoff Current	I_{CBO}	At rated Voltage	Max 0.1	mA
	I_{CEO}		Max 0.1	
Emitter Cutoff Current	I_{EBO}	At rated Voltage	Max 0.1	mA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 5A$	Min 8	
	h_{FEL}	$V_{CE} = 5V, I_C = 1mA$	Min 7	
Collector to Emitter Saturation Voltage	$V_{CE}(sat)$	$I_C = 5A$	Max 1.0	V
Base to Emitter Saturation Voltage	$V_{BE}(sat)$	$I_B = 1A$	Max 1.5	V
Thermal Resistance	θ_{jc}	Junction to case	Max 1.47	$^{\circ}C/W$
Transition Frequency	f_T	$V_{CE} = 10V, I_C = 1A$	TYP 8	MHz
Turn on Time	t_{on}	$I_C = 5A$	Max 0.5	μs
Storage Time	t_s	$I_{B1} = 1A, I_{B2} = 2A$	Max 3.5	
Fall Time	t_f	$R_L = 50\Omega, V_{BB2} = 4V$	Max 0.3	

2SC4585

$h_{FE} - I_C$

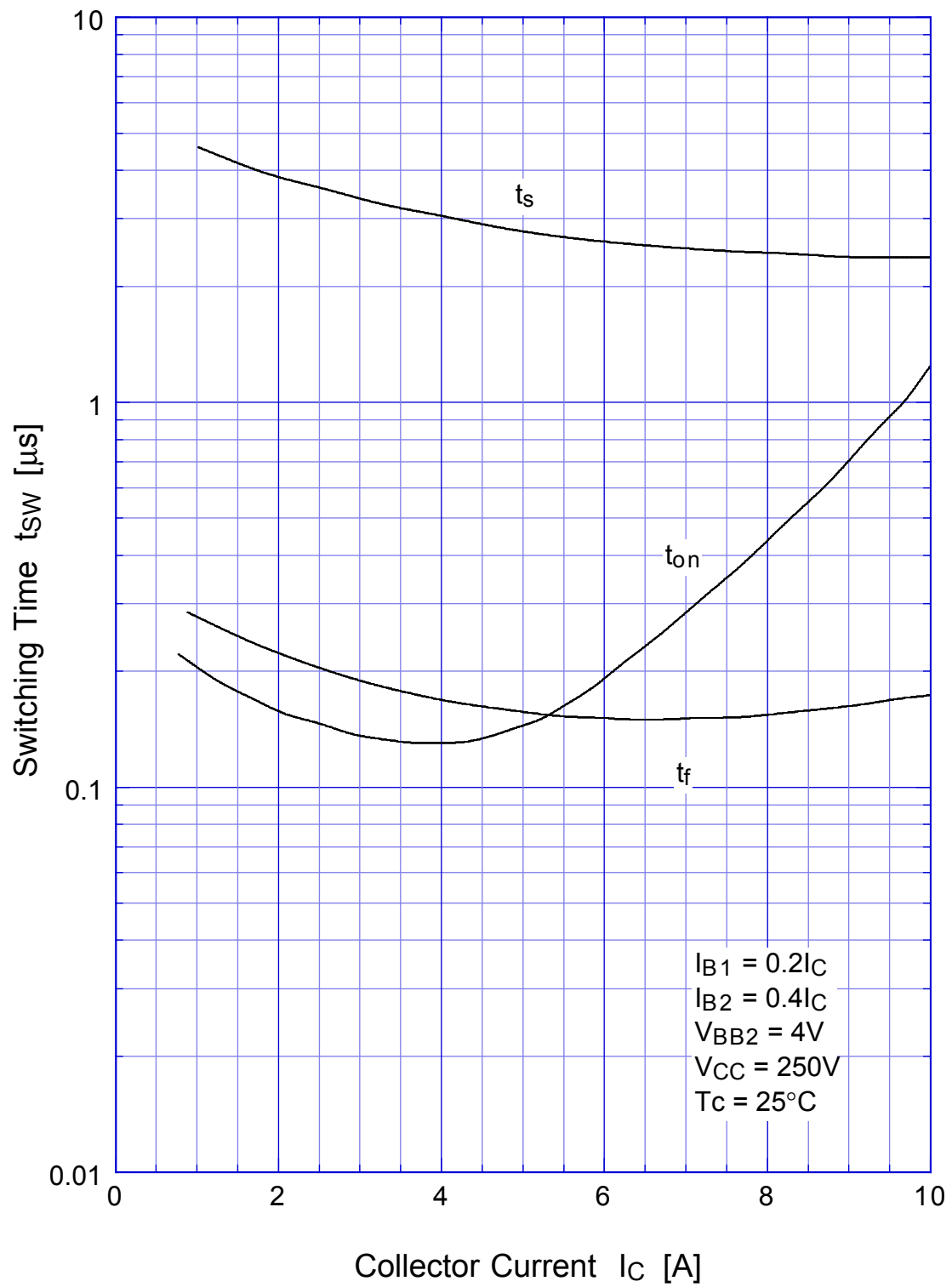


2SC4585 Saturation Voltage



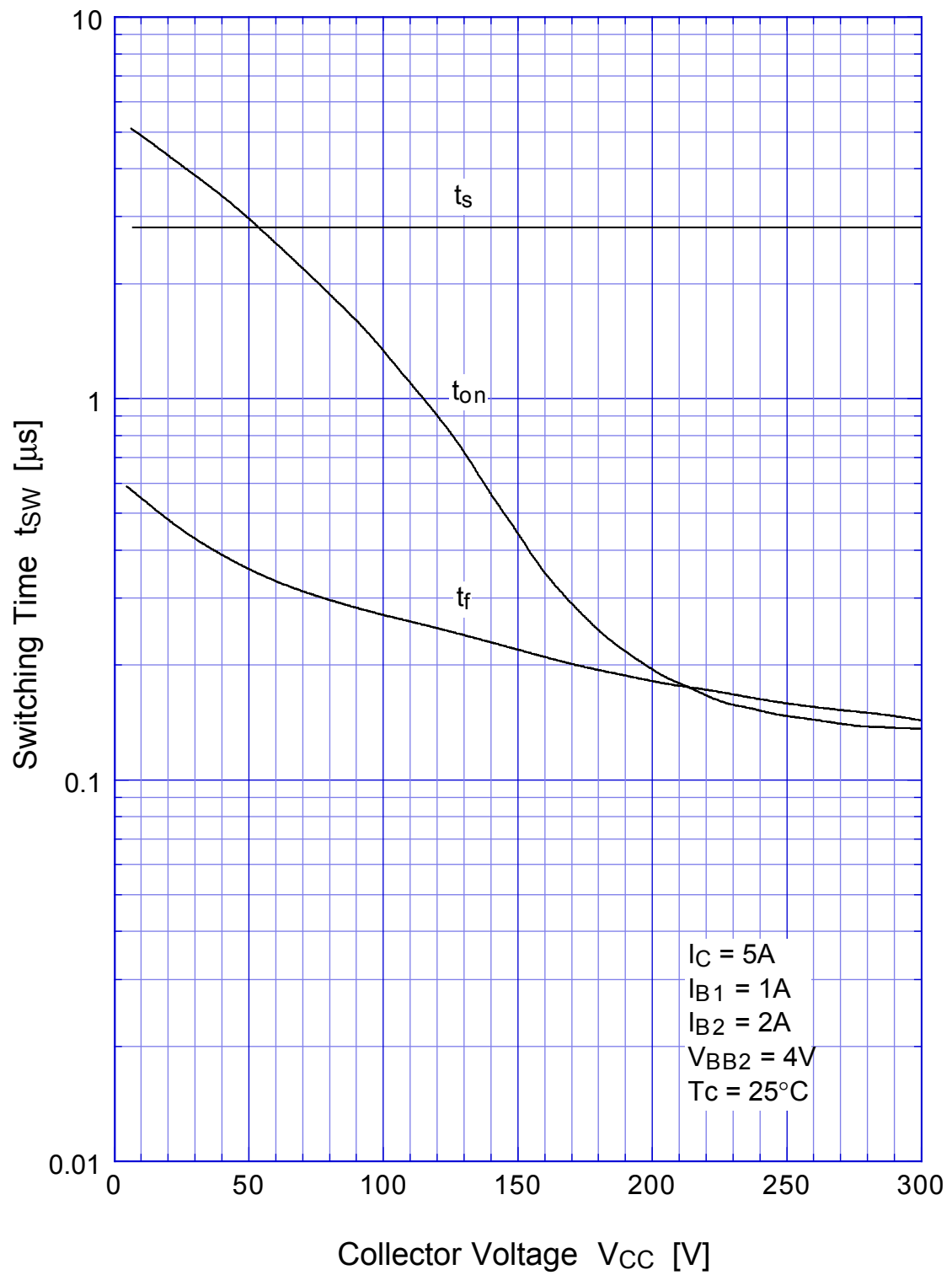
2SC4585

Switching Time - I_C



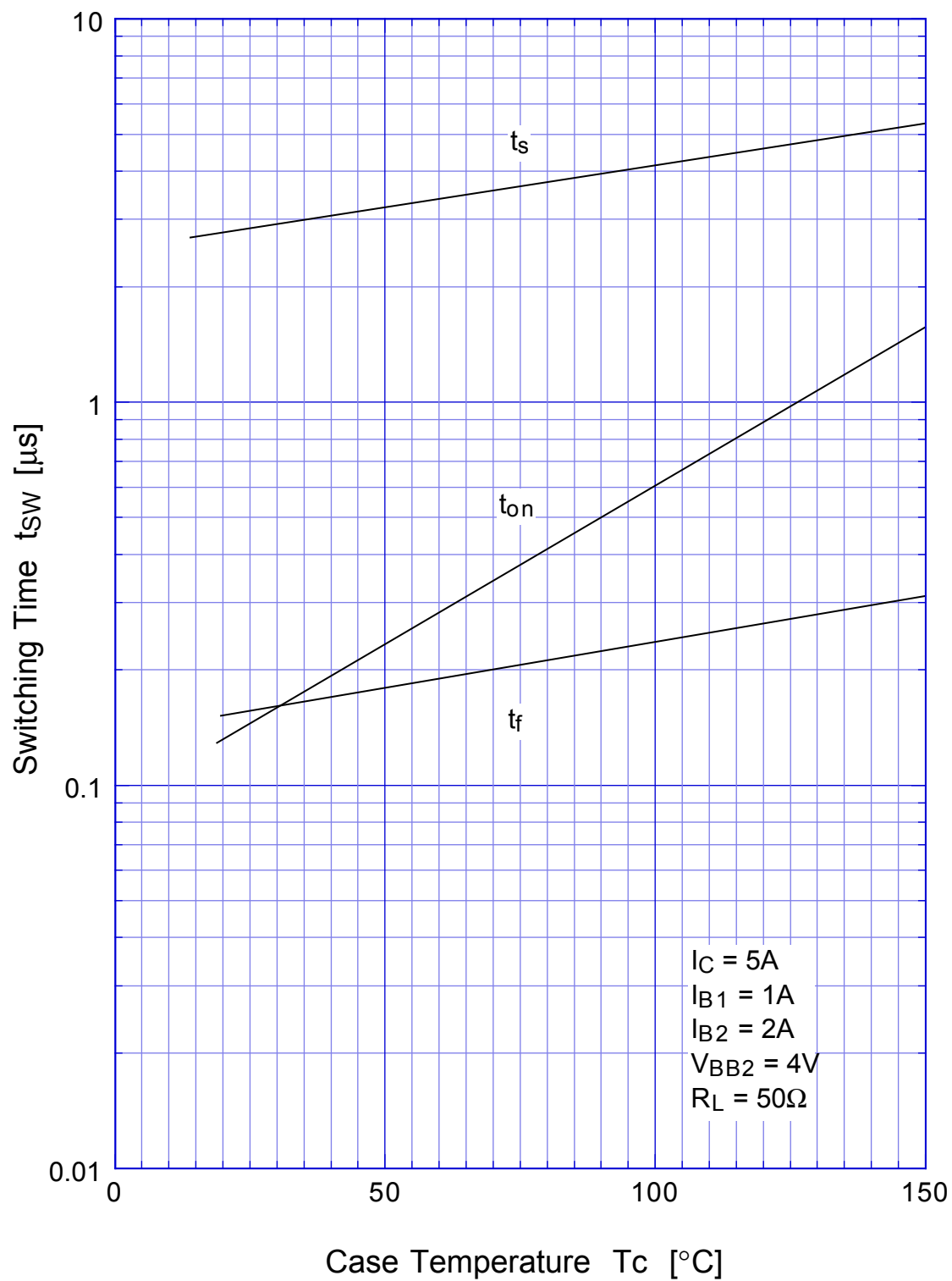
2SC4585

Switching Time - V_{CC}

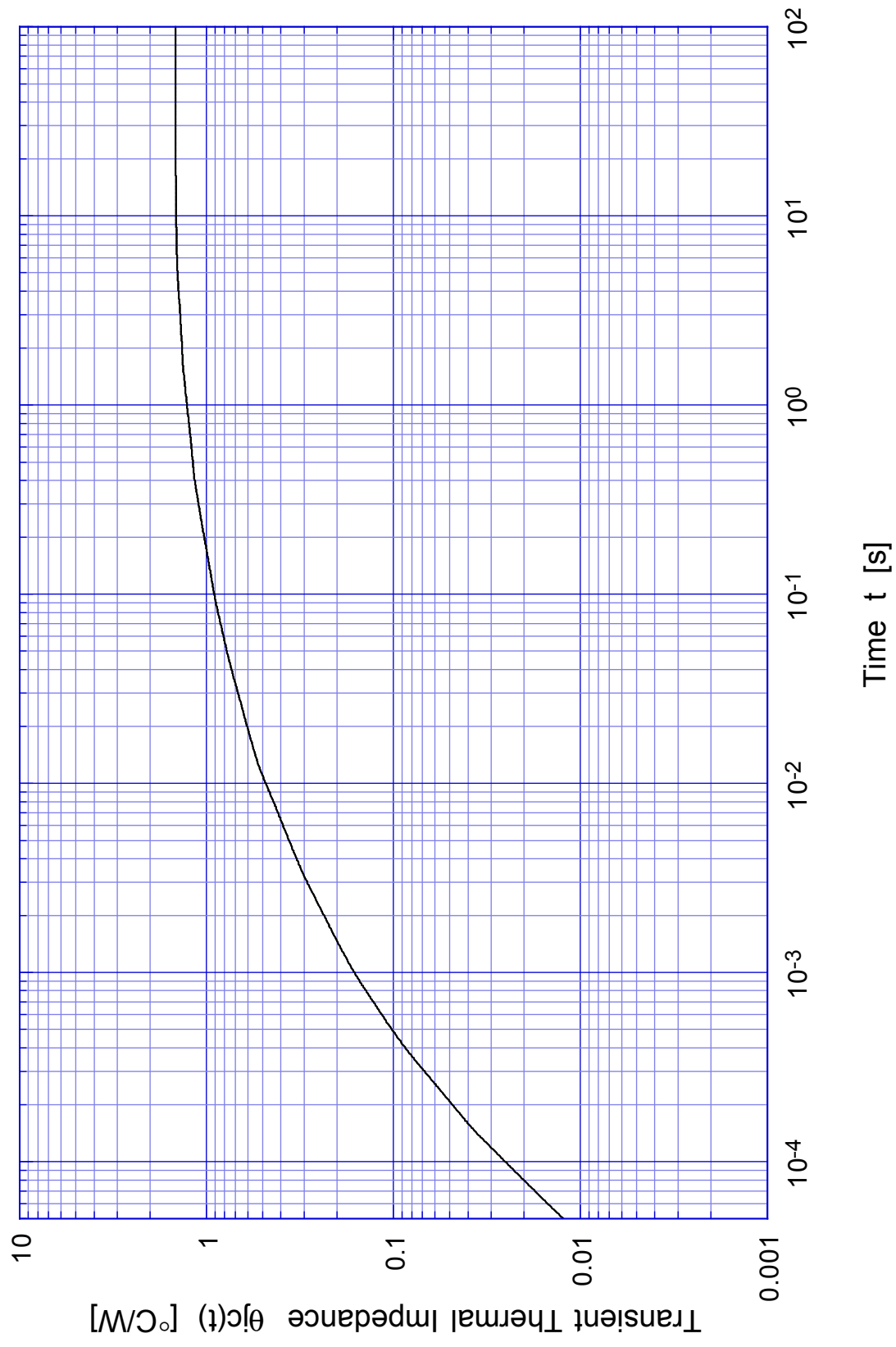


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Switching Time - T_c

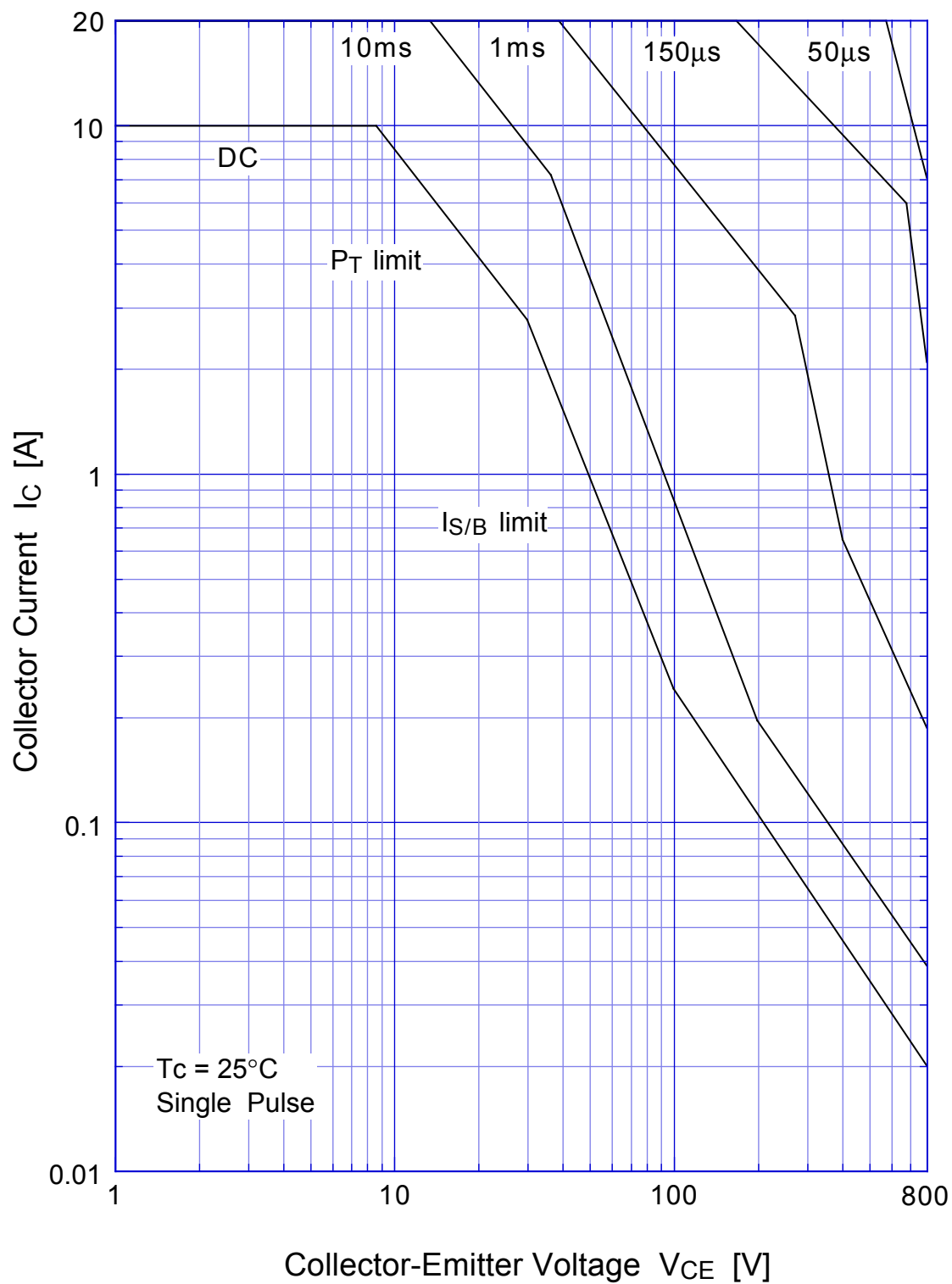


2SC4585 Transient Thermal Impedance

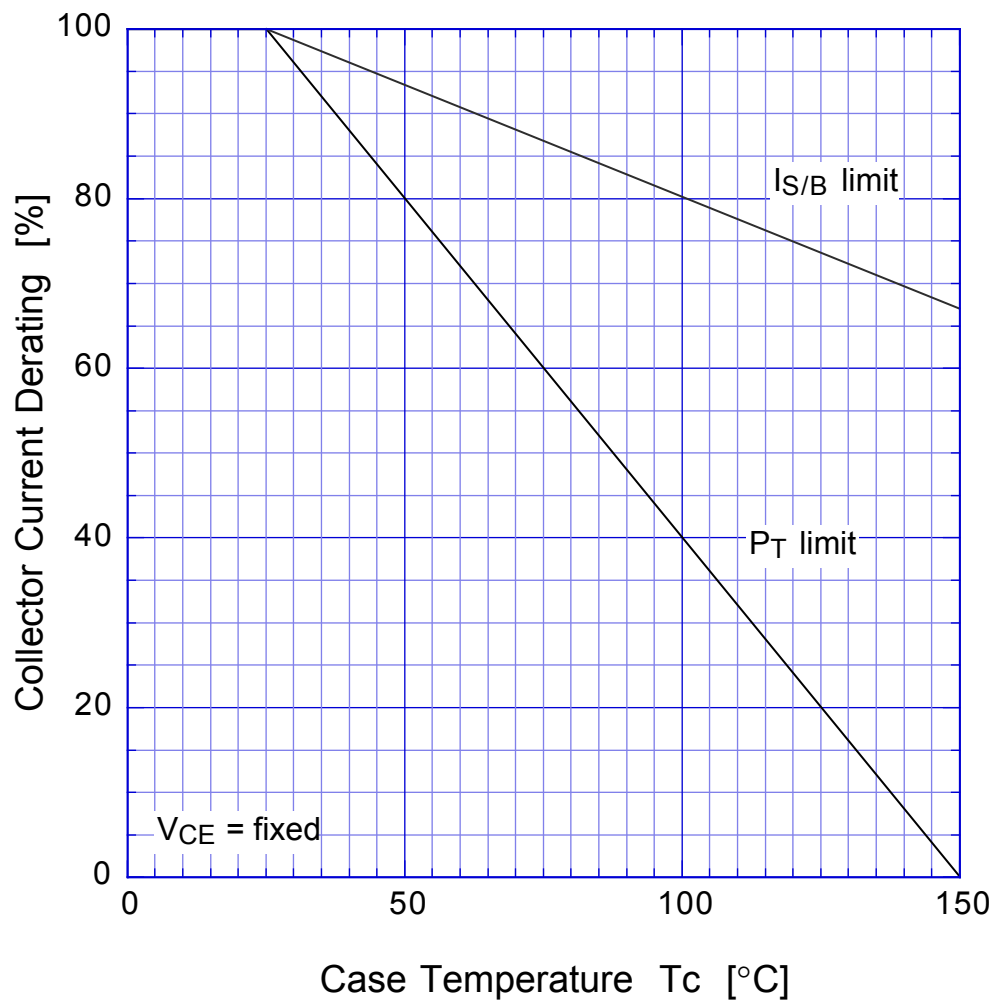


2SC4585

Forward Bias SOA



2SC4585 Collector Current Derating



2SC4585

Reverse Bias SOA

