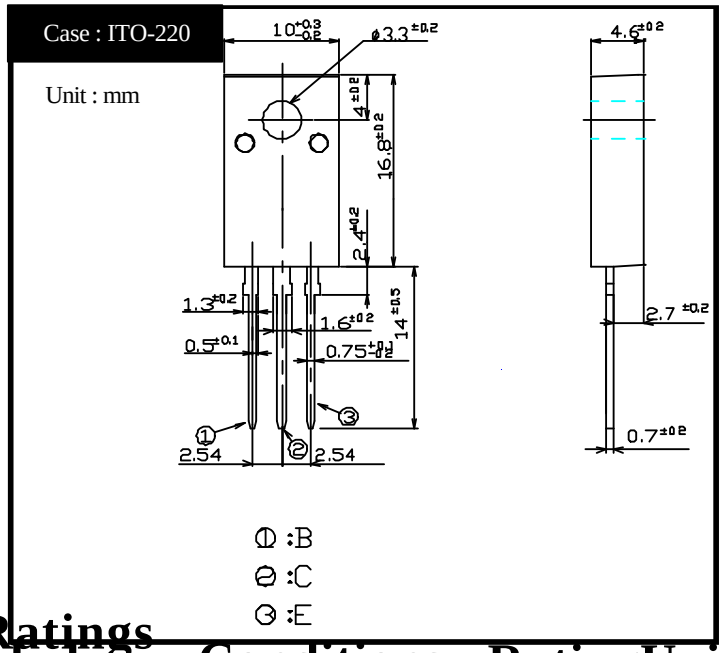
SHINDENGEN

Darlington Transistor

2SD1791
(TP7L10)

7A NPN

OUTLINE DIMENSIONS



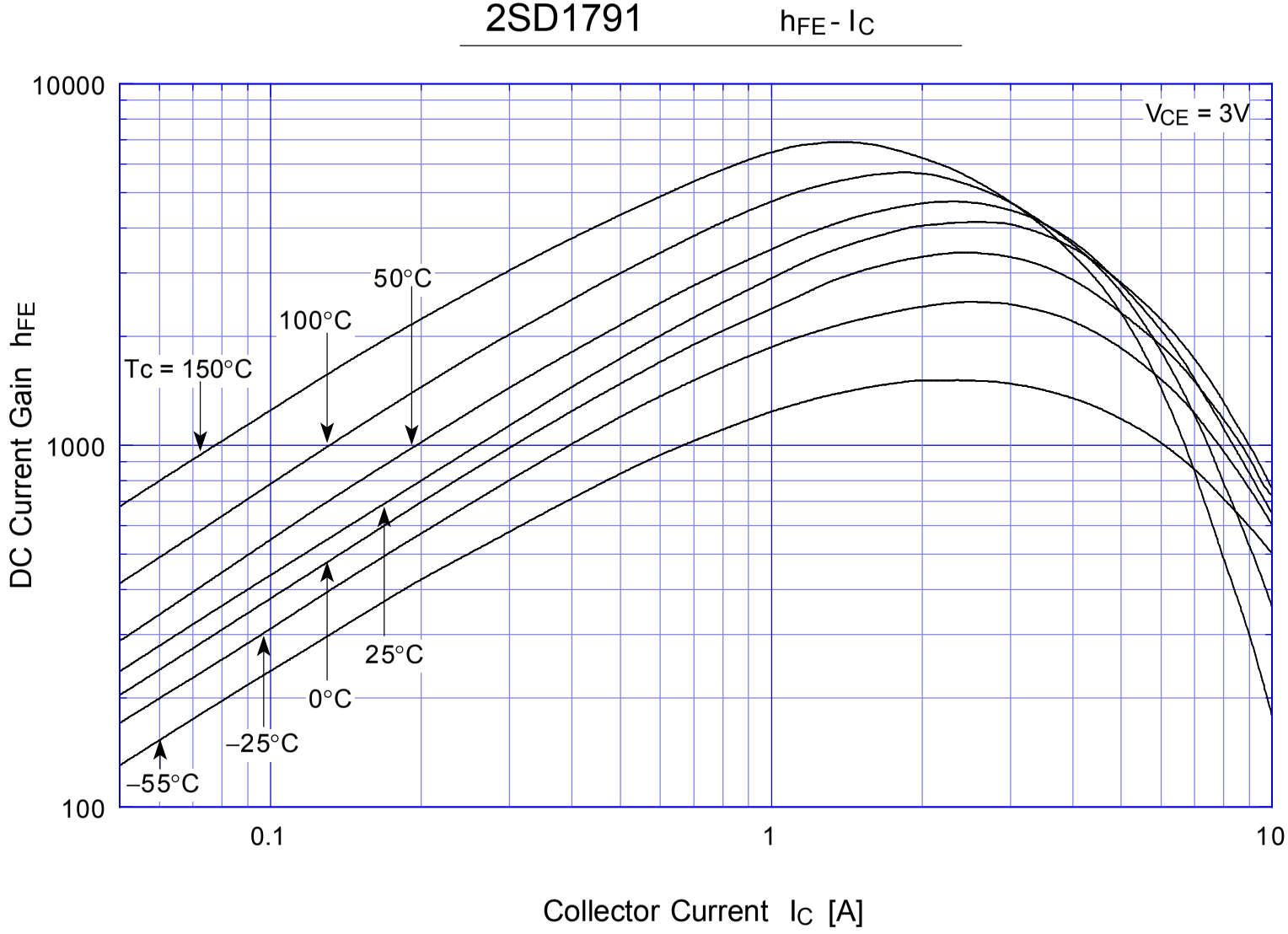
RATINGS

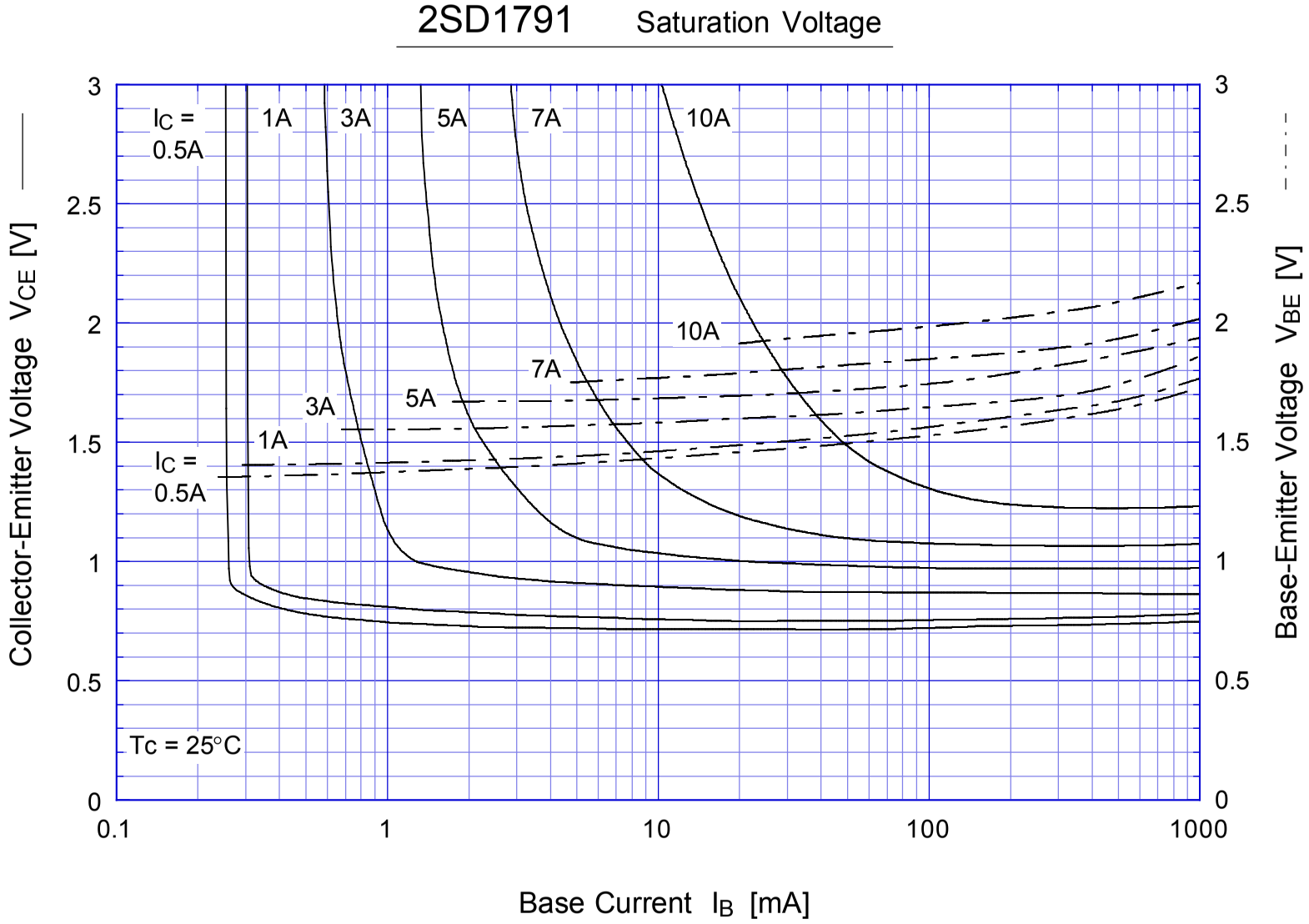
•œAbsolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55• ~ +150	•Ž
Junction Temperature	Tj		+150	•Ž
Collector to Base Voltage	VCBO		100	V
Collector to Emitter Voltage	VCEO		100	V
Emitter to Base Voltage	VEBO		7	V
Collector Current DC	IC		7	A
Collector Current Peak	ICP		10	A
Base Current DC	IB		0.5	A
Base Current Peak	IBP		1.0	A
Total Transistor Dissipation	PT	Tc = 25•Ž	30	W
Dielectric Strength	Vdis	Terminals to case AC2	1 minute	kV
Mounting Torque	TOR	(Recommended torque : 0.5	0.6	N•m•j

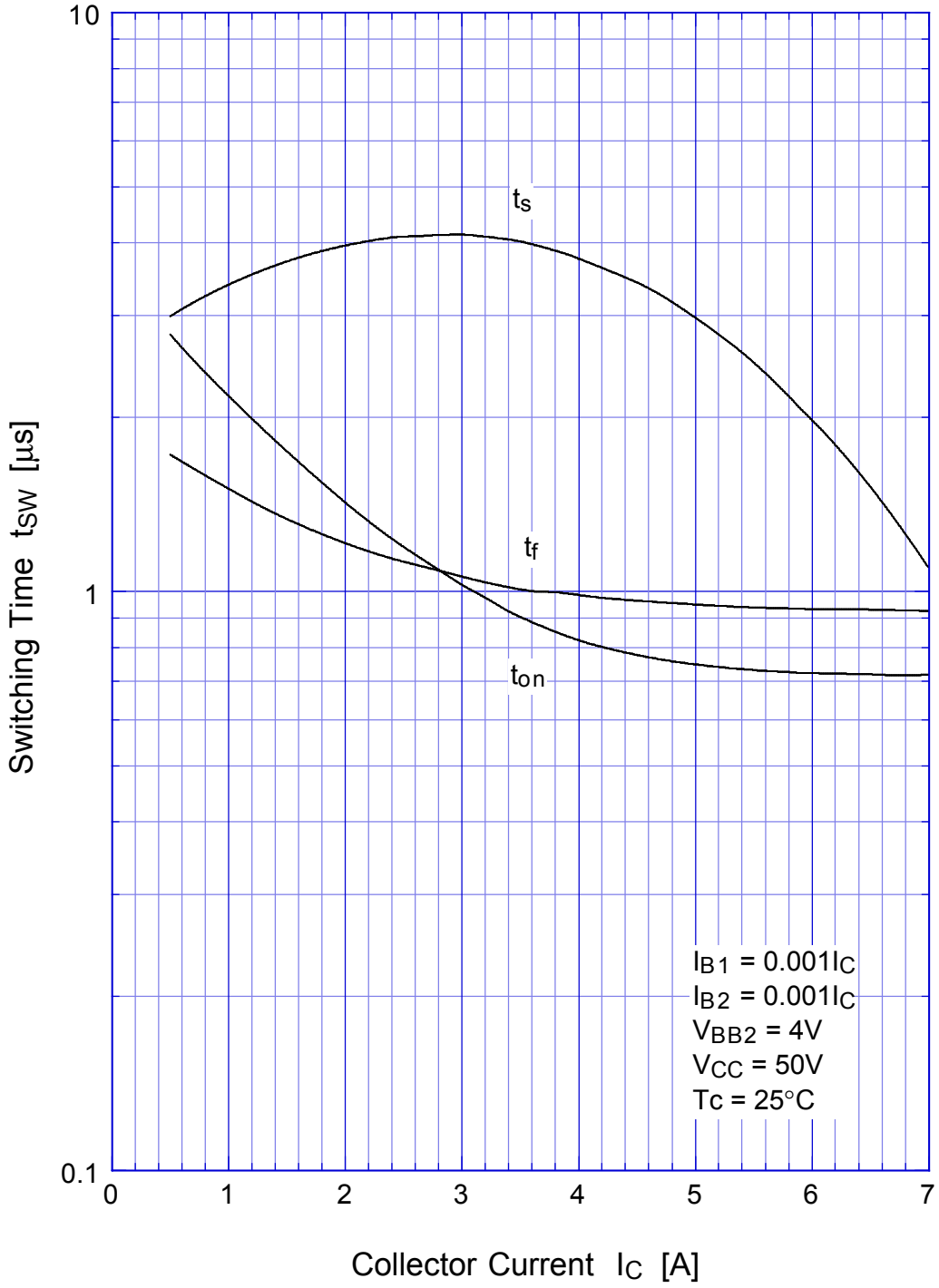
•œElectrical Characteristics (Tc=25•Ž)

Item	Symbol	Conditions	Ratings	Unit
Collector Cutoff Current	ICBO	VCB 100V	Max 0.1	mA
	ICEO	VCE 100V	Max 0.1	
Emitter Cutoff Current	IEBO	VEB 7V	Max 5	mA
DC Current Gain	hFE	VCE 3V, 5A	Min 1,500	
			Max 30,000	
Collector to Emitter Saturation Voltage	VCE(sat)	IC 3A, IB 3mA	Max 1.5	V
Base to Emitter Saturation Voltage	VBE(sat)	IC 3A, IB 3mA	Max 2.0	V
Thermal Resistance	fÆjc	Junction to case	Max 4.17	•Ž/W
Transition Frequency	fT	VCE 10V, 0.7A	TYP 20	MHz
Turn on Time	ton	IC= 3A	Max 2	
Storage Time	ts	IB1=-IB2= 5mA	Max 12	fÊs
Fall Time	tf	R= 10f¶ VBB -4V	Max 5	

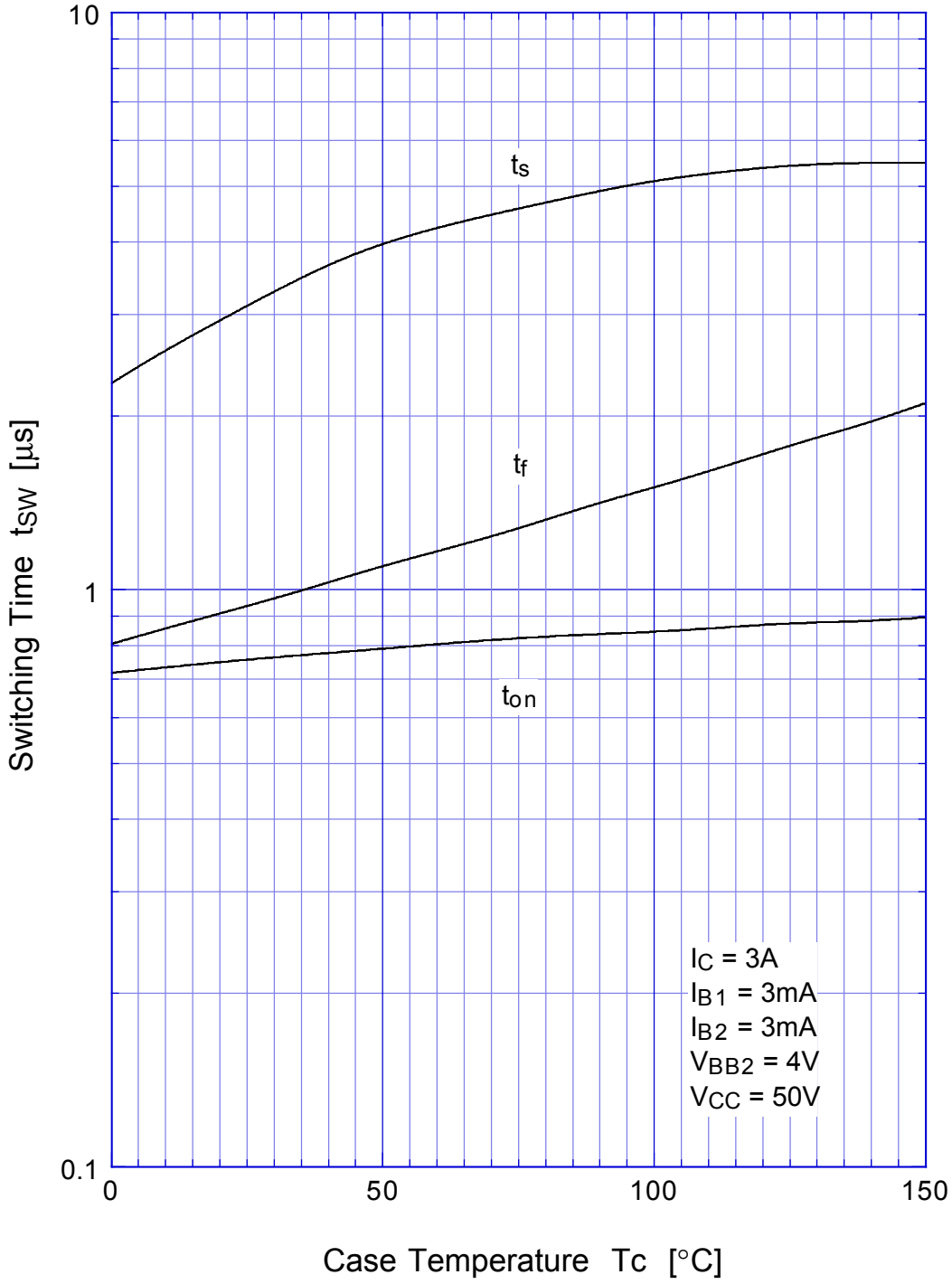


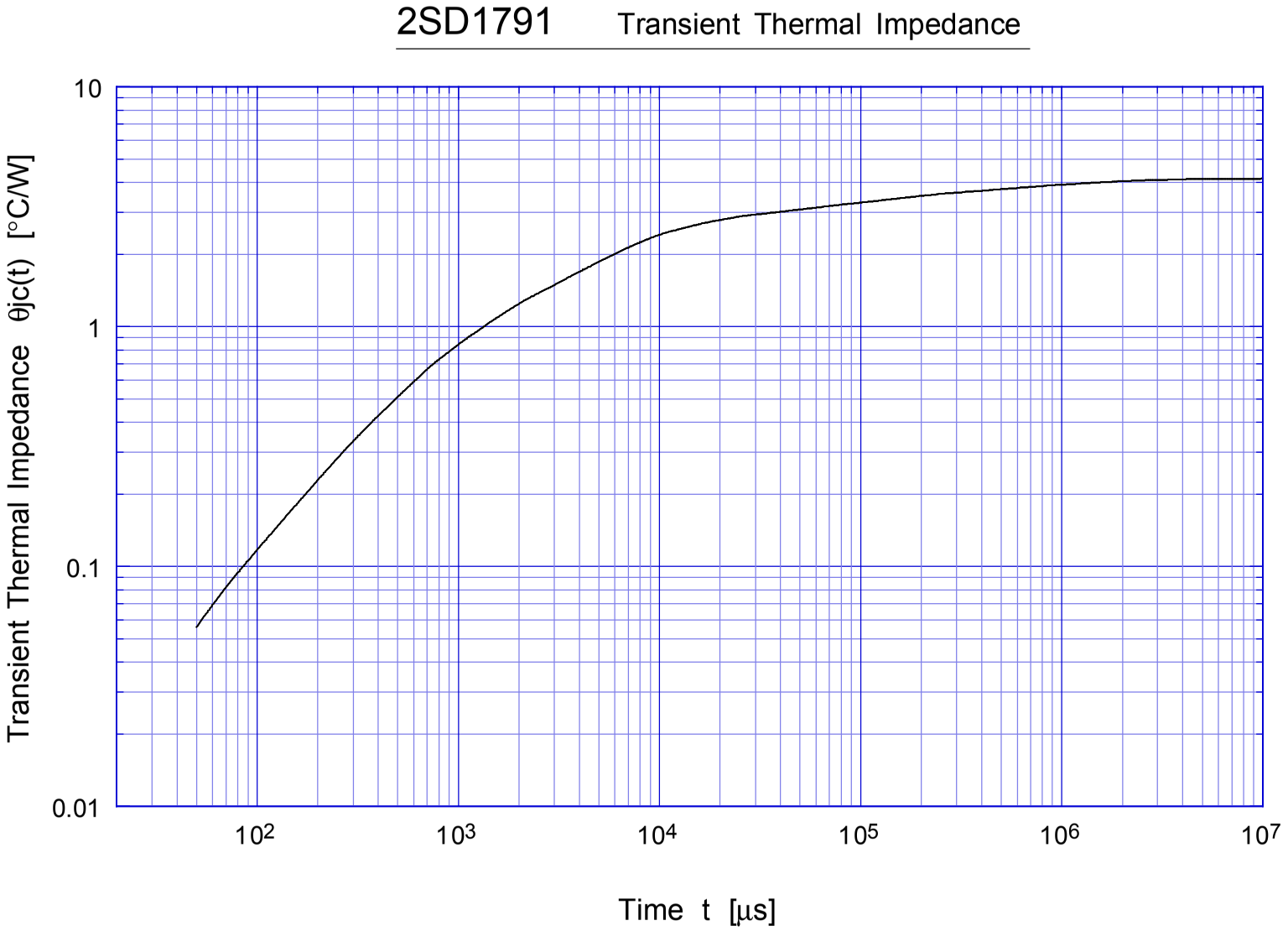


2SD1791 Switching Time - I_C



2SD1791 Switching Time - Tc





2SD1791 Forward Bias SOA