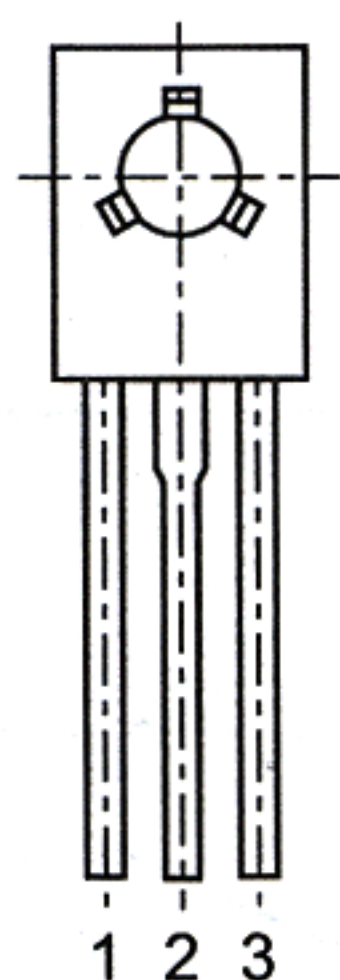


TO-126 Plastic-Encapsulate Transistors

BD233/235/237 TRANSISTOR(NPN)



TO-126

1.EMITTER

2.COLLECTOR

3.BASE

FEATURES

Power dissipation

P_{CM} : 1.25 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 2 A

Collector-base voltage

$V_{(BR)CBO}$: BD233 : 45V

BD235 : 60V

BD237: 100V

Operating and storage junction temperature range

T_{stg} : $-65^{\circ}C$ to $+150^{\circ}C$

T_J : $150^{\circ}C$

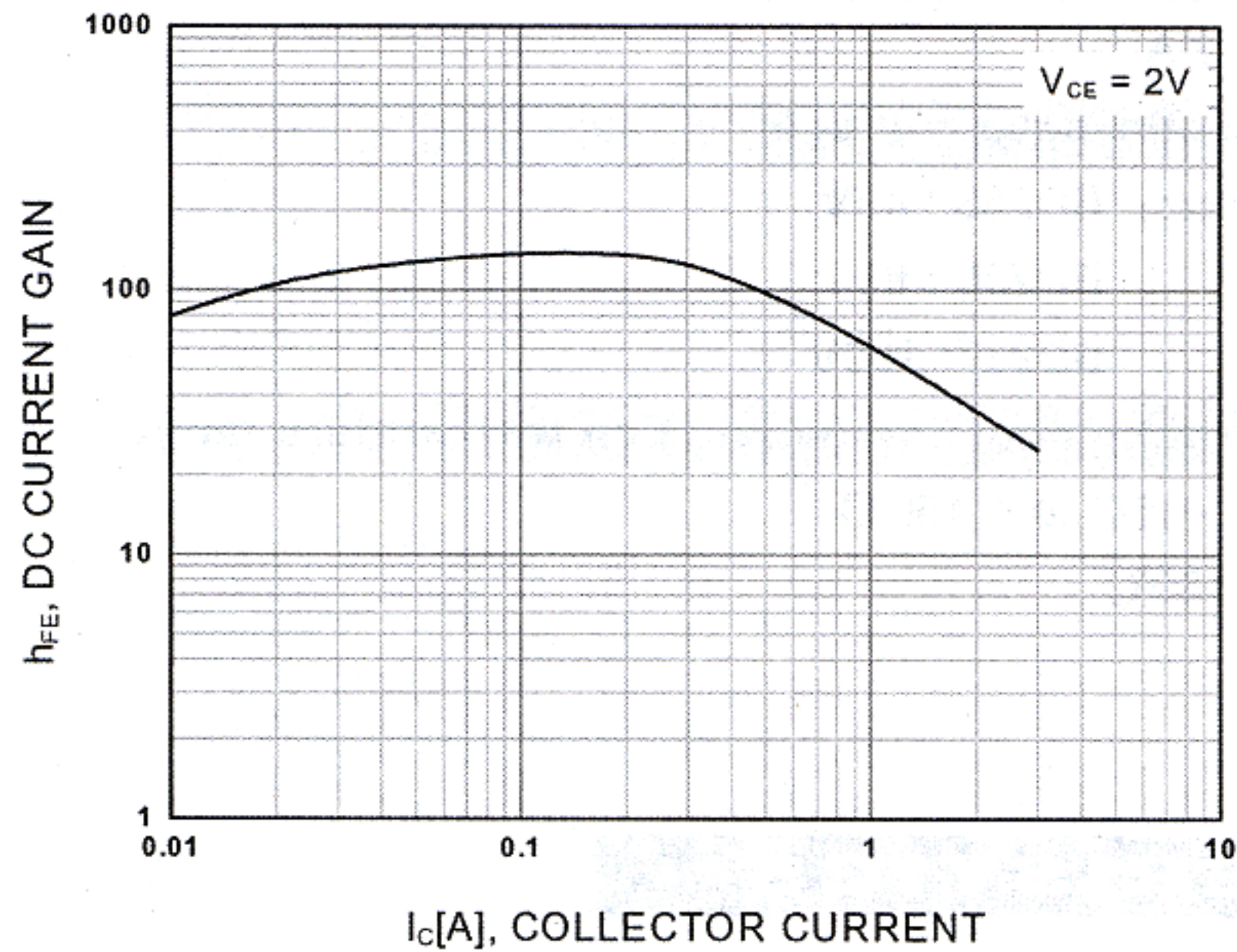
ELECTRICAL CHARACTERISTICS

($T_{amb}=25^{\circ}C$ unless otherwise specified)

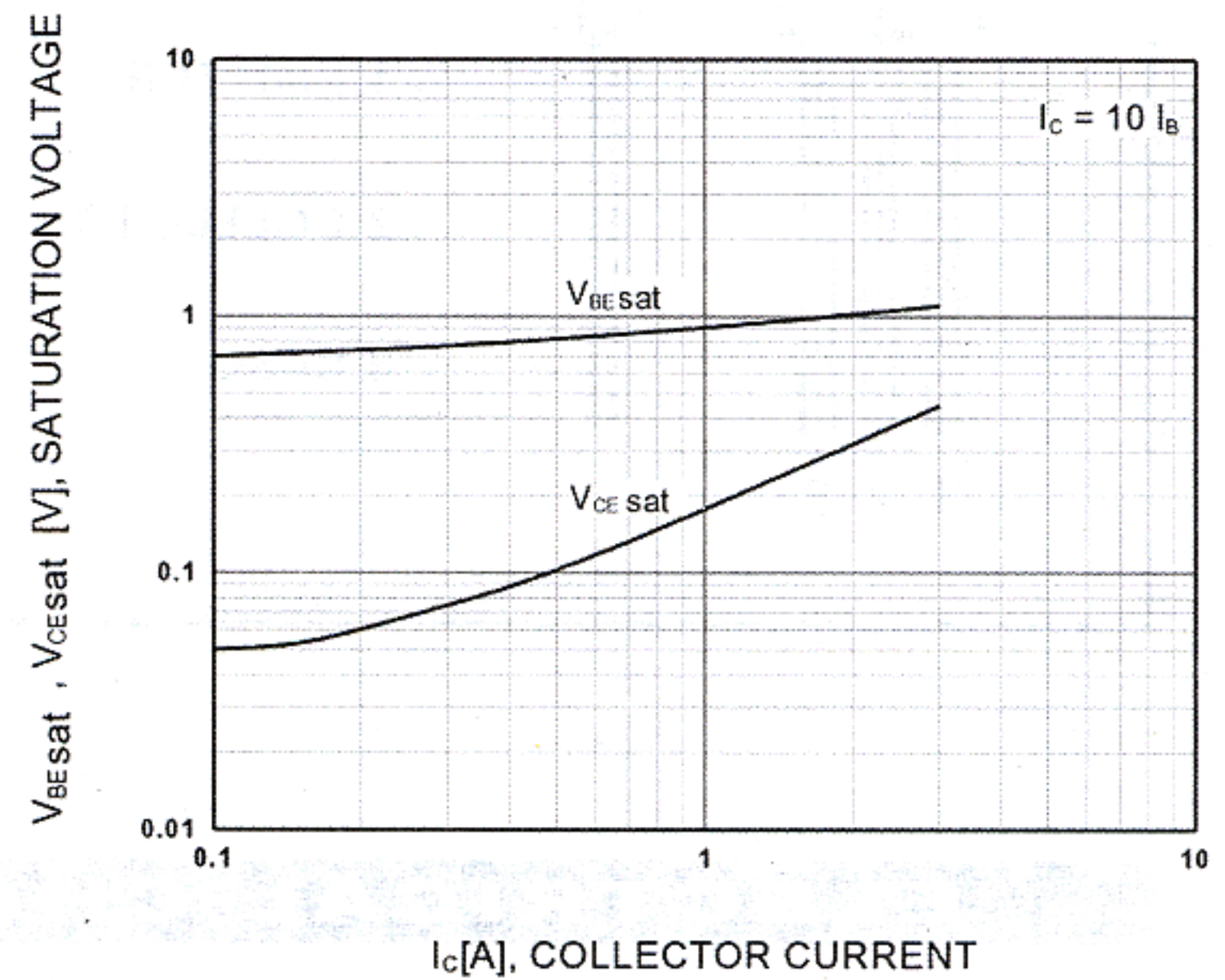
Parameter		Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BD233	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	45		V
	BD235			60		
	BD237			100		
Collector-emitter breakdown voltage	BD233	$V_{(BR)CEO}$	$I_C = 10 mA, I_B = 0$	45		V
	BD235			60		
	BD237			80		
Emitter-base breakdown voltage		$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	5		V
Collector cut-off current	BD233	I_{CBO}	$V_{CB} = 45 V, I_E = 0$		100	μA
	BD235		$V_{CB} = 60 V, I_E = 0$			
	BD237		$V_{CB} = 100 V, I_E = 0$			
Emitter cut-off current		I_{EBO}	$V_{EB} = 5 V, I_C = 0$		1	mA
DC current gain		$h_{FE(1)}$	$V_{CB} = 2 V, I_C = 150 mA$	40		
		$h_{FE(2)}$	$V_{CB} = 2 V, I_C = 1 A$	25		
Collector-emitter saturation voltage		V_{CEsat}	$I_C = 1 A, I_B = 100 mA$		0.6	V
Transition frequency		f_T	$V_{CE} = 10V, I_C = 250mA$ $f = 10MHz$	3		MHz

Typical Characteristics

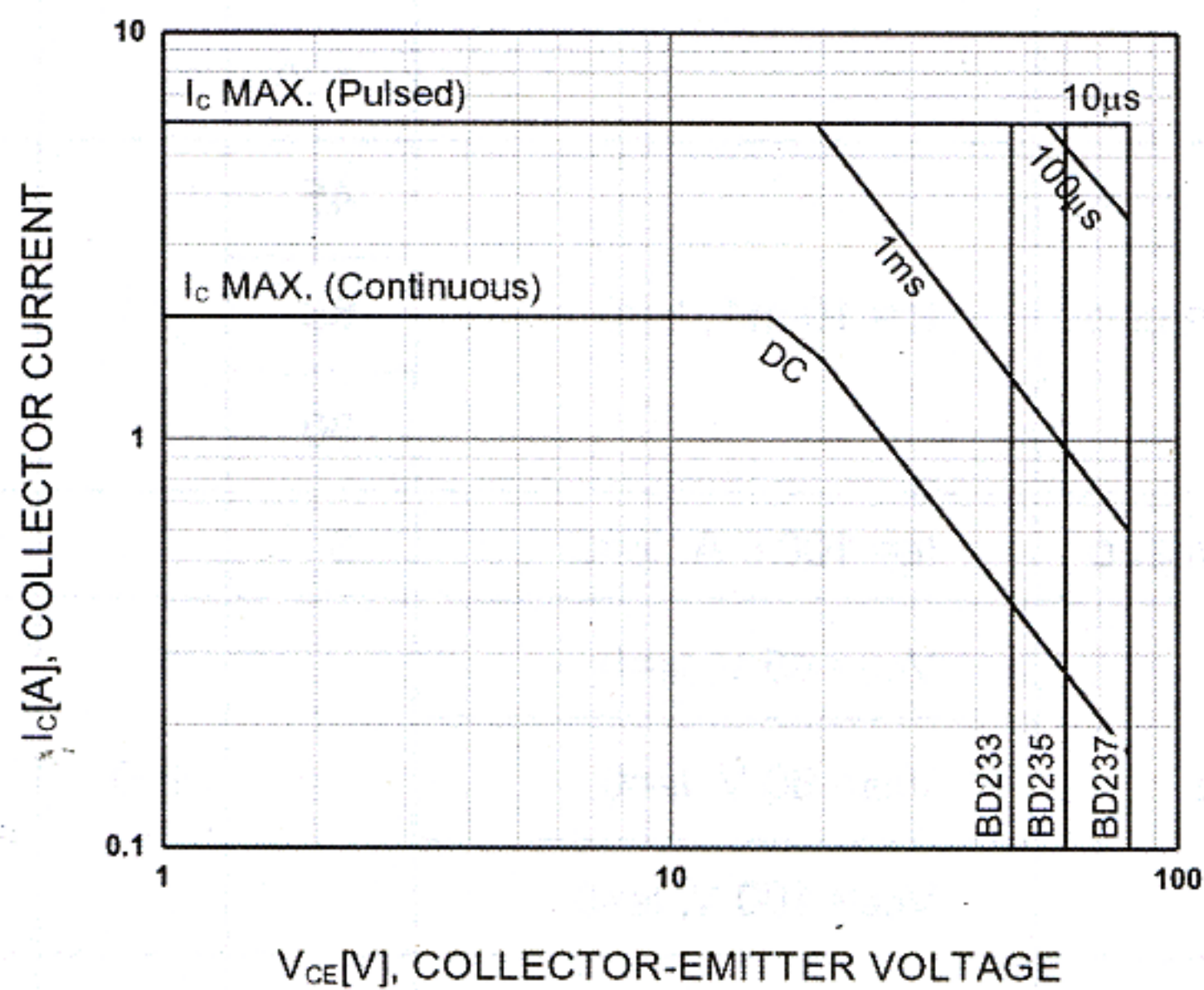
BD233/235/237



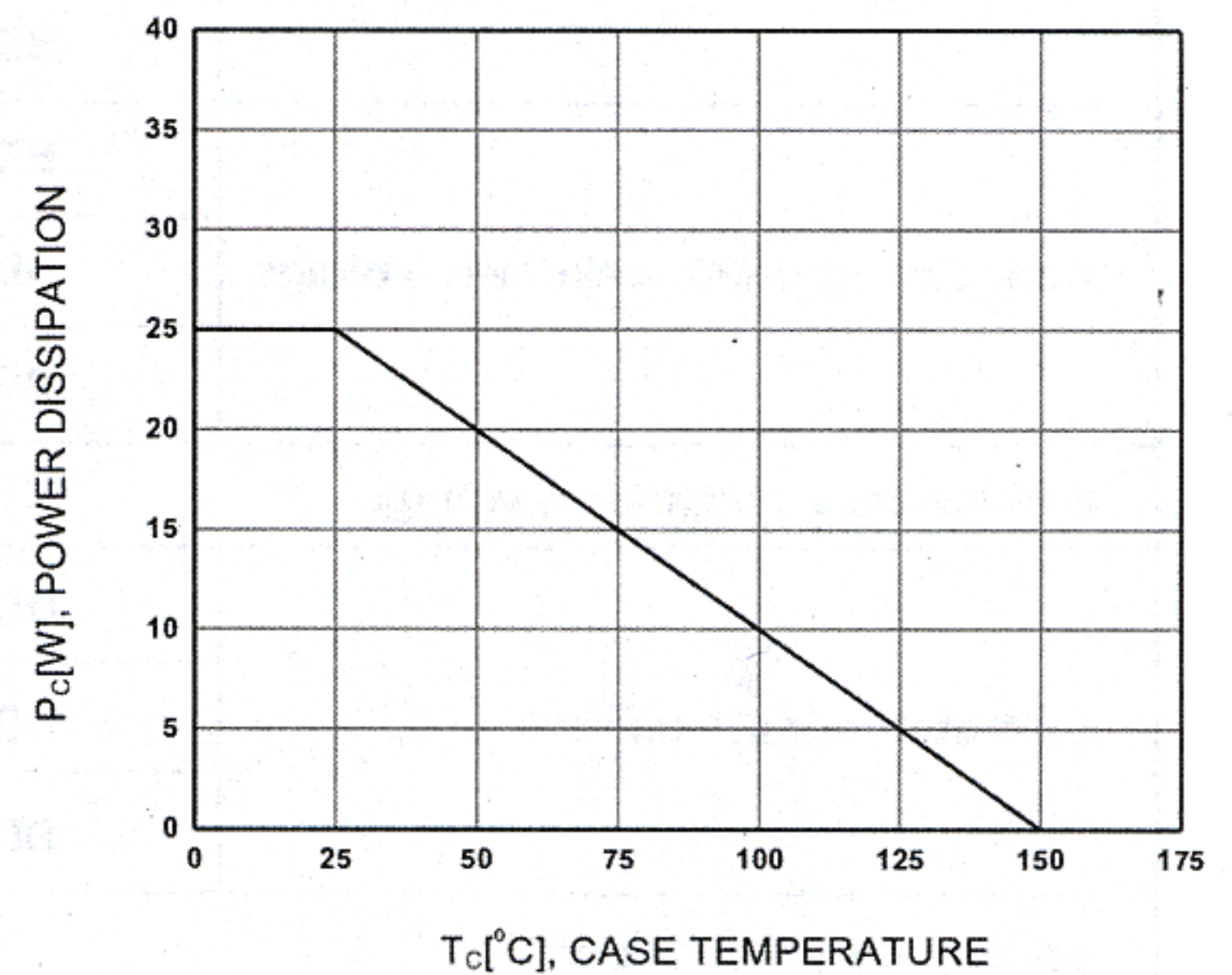
DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Safe Operating Area



Power Derating