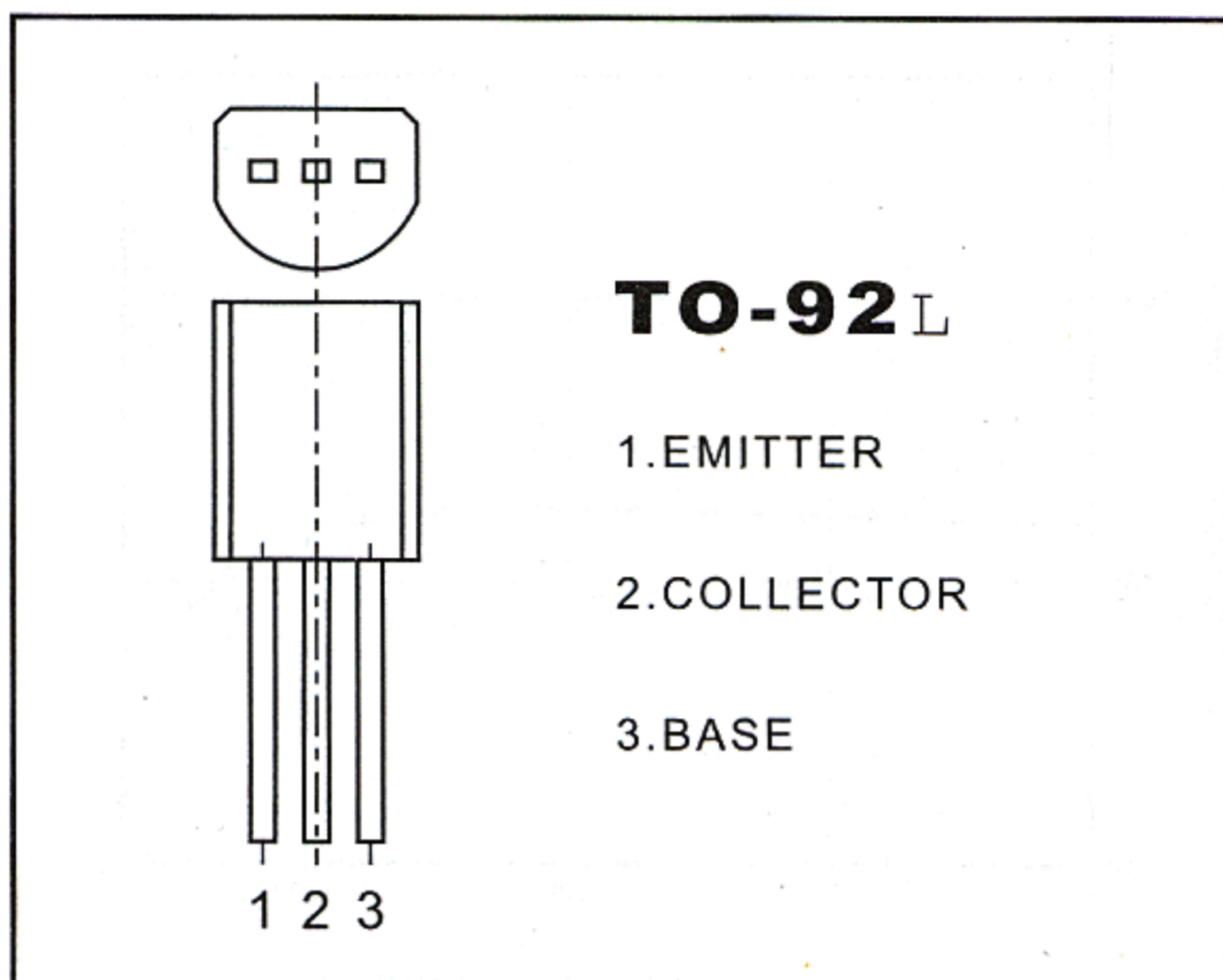


TO-92 Plastic-Encapsulate Transistors

KSC2328A TRANSISTOR(NPN)



FEATURES

Power dissipation

P_{CM} : 1W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 2A

Collector-base voltage

$V_{(BR)CBO}$: 30 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10 mA, I_B=0$	30		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1 mA, I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=30 V, I_E=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5 V, I_C=0$		0.1	μA
DC current gain	h_{FE}	$V_{CE}=2 V, I_C=500 mA$	100	320	
Collector-emitter saturation voltage	V_{CEsat}	$I_C=1.5 A, I_B=0.03 A$		2	V
Base-emitter voltage	V_{BE}	$I_C=500 mA, V_{CE}=2 V$		1	V
Transition frequency	f_T	$V_{CE}=2 V, I_C=500 mA$	80		MHz

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	100-200	160-320

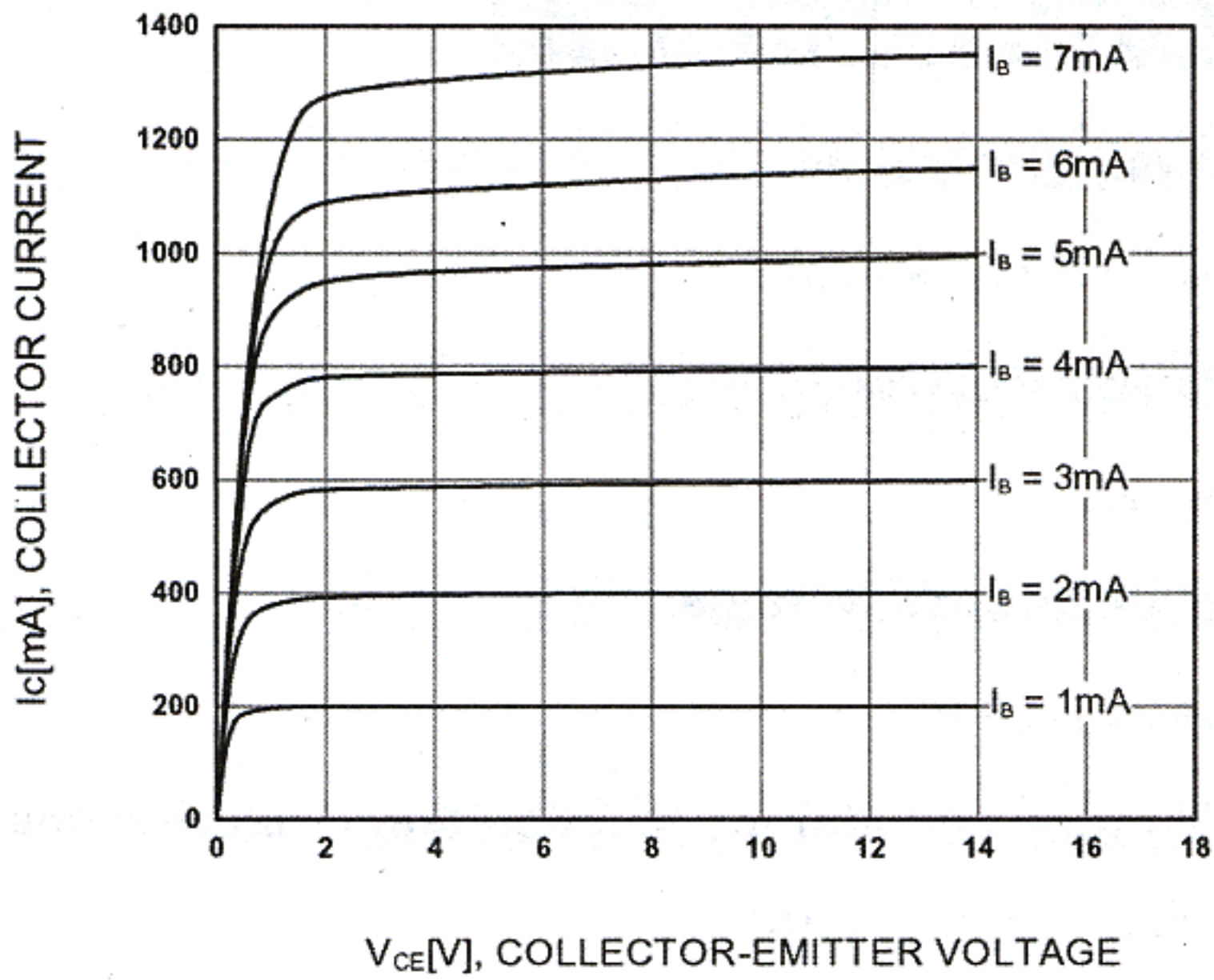


Figure 1. Static Characteristic

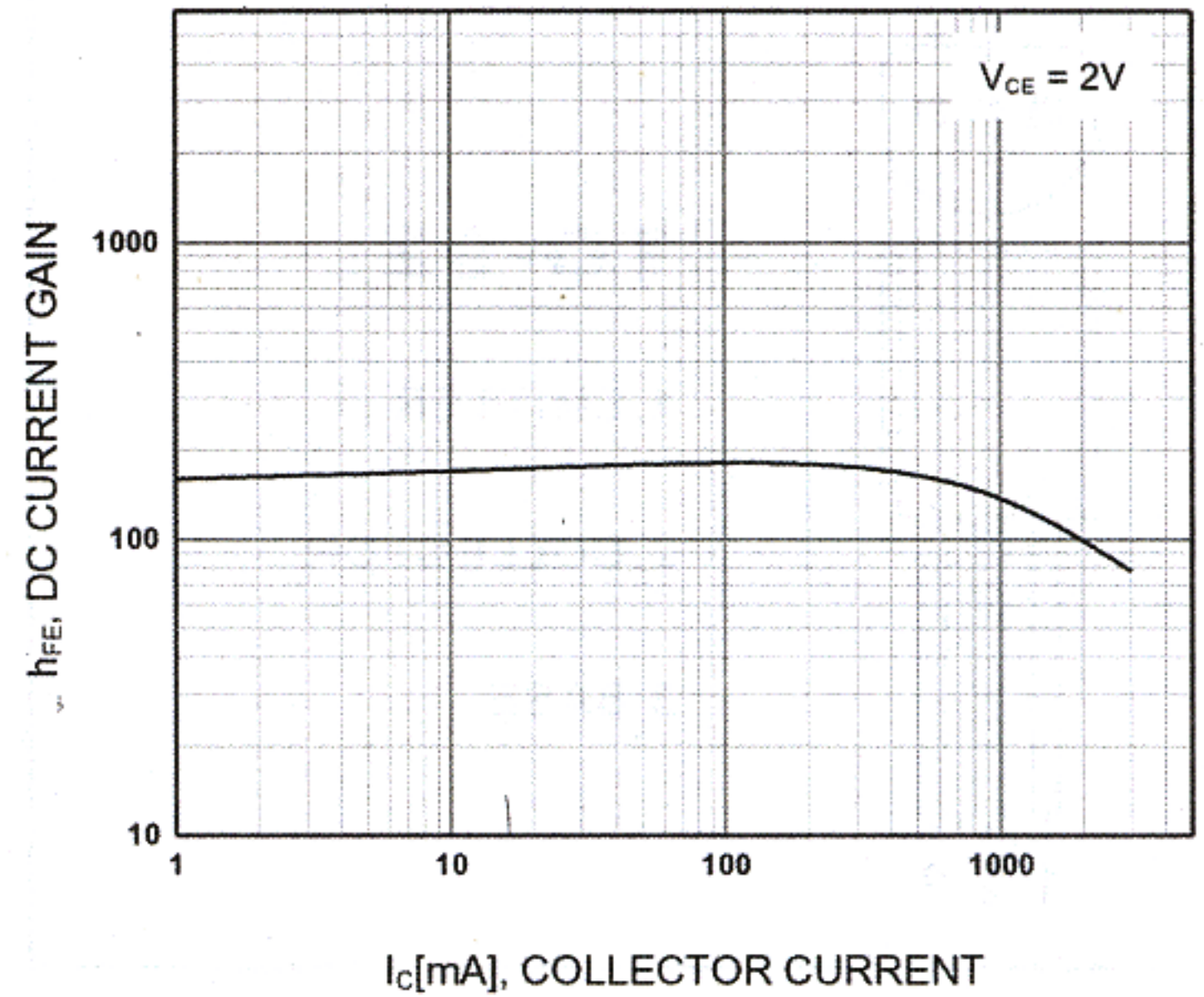


Figure 2. DC current Gain

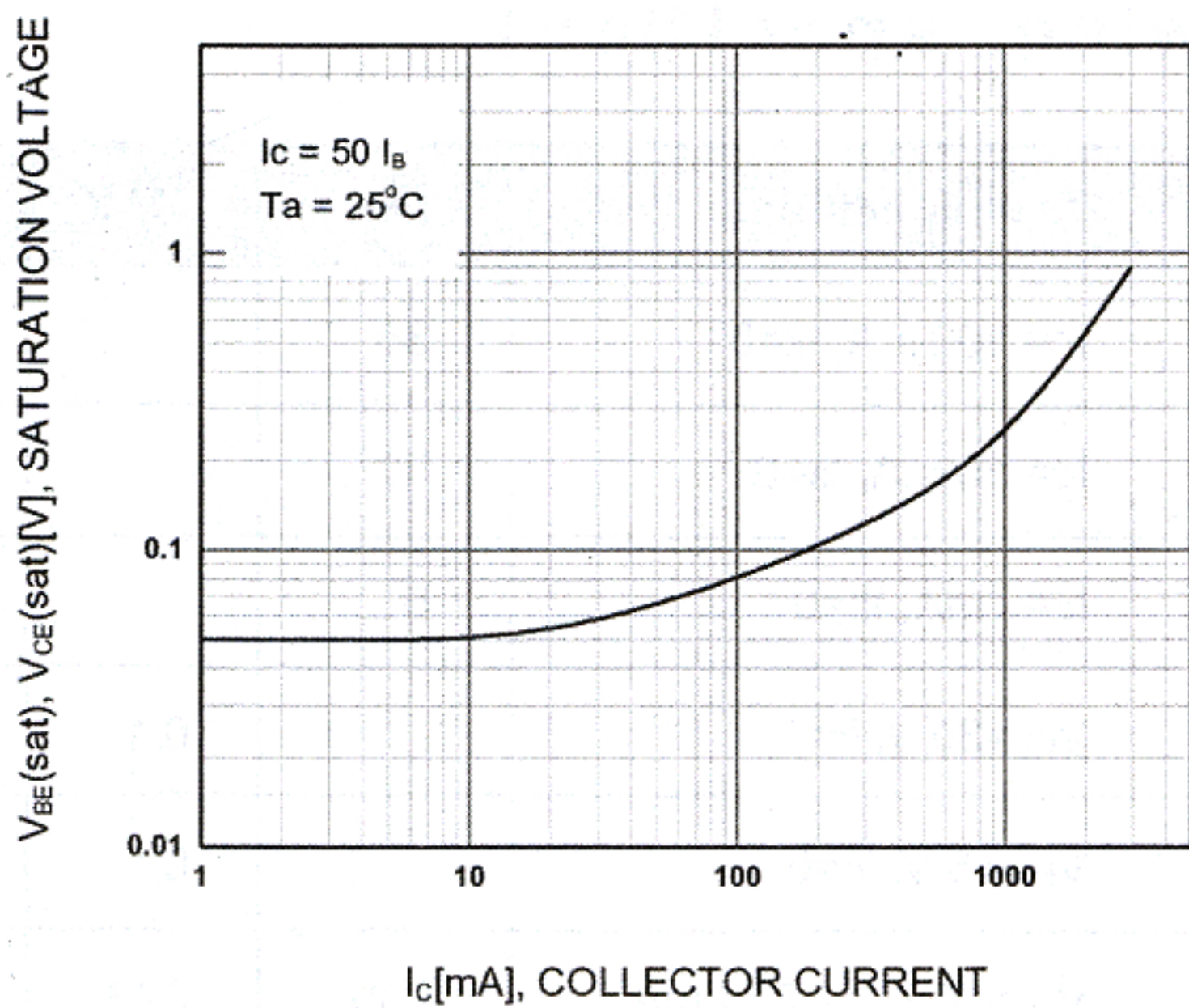


Figure 3. Collector-Emitter Saturation Voltage

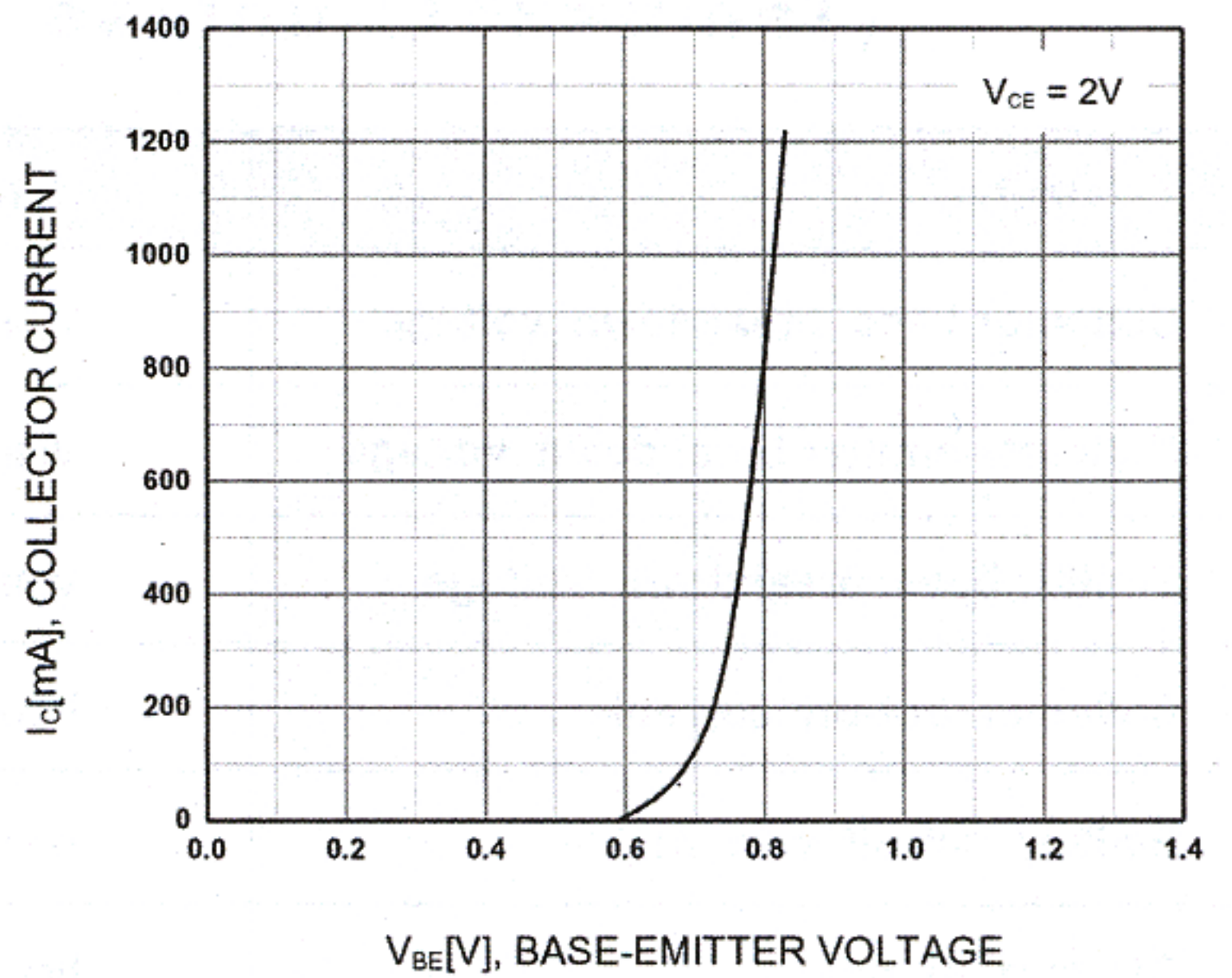


Figure 4. Base-Emitter On Voltage

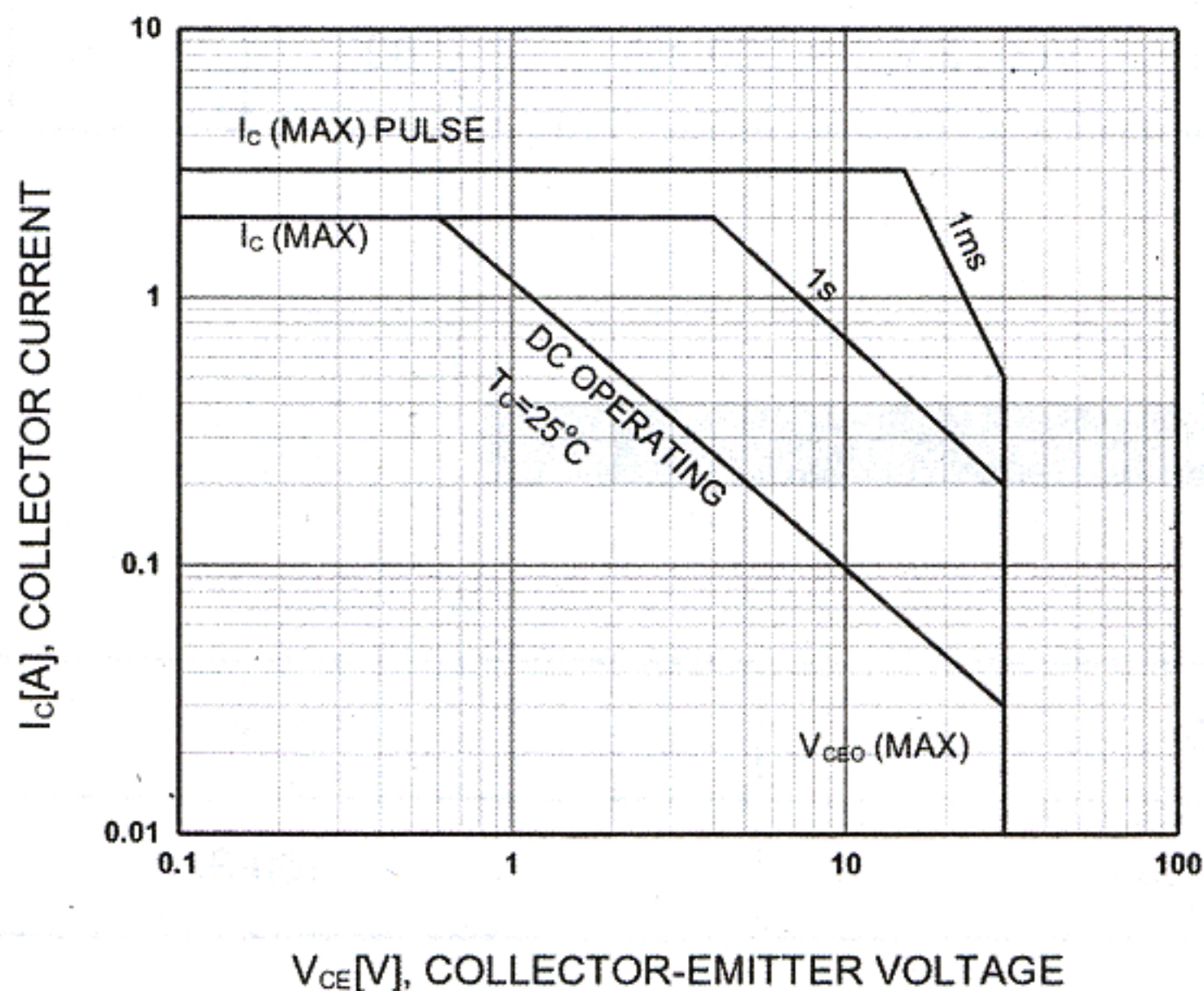


Figure 5. Safe Operating Area

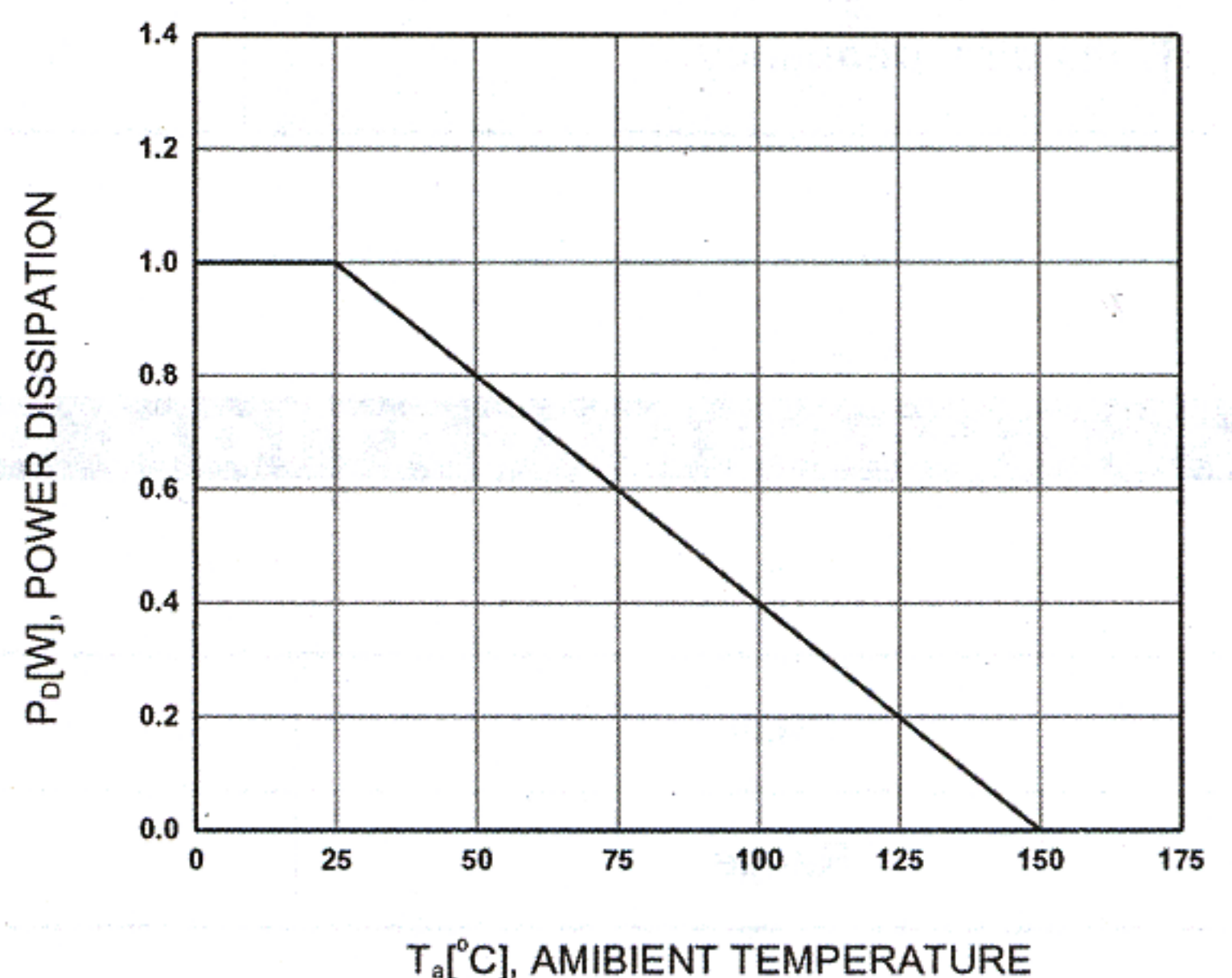


Figure 6. Power Derating