

D965 TRANSISTOR(NPN)

FEATURES

Power dissipation

P_{CM} : 0.75W ($T_{amb}=25^{\circ}C$)

Collector current

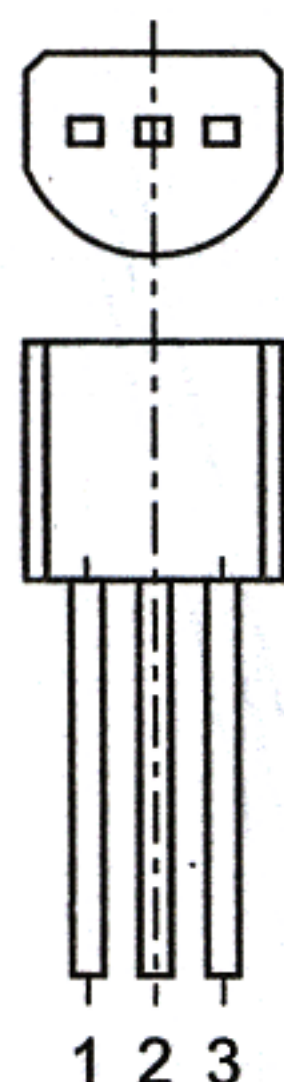
I_{CM} : 5 A

Collector-base voltage

$V_{(BR)CBO}$: 42 V

Operating and storage junction temperature range

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



TO-92

1.EMITTER

2.COLLECTOR

3.BASE

1 2 3

ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10 \mu A, I_E = 0$	42		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 mA, I_B = 0$	22		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu A, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 30 V, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6 V, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 2 V, I_C = 0.15 mA$	150		
	$h_{FE(2)}$	$V_{CE} = 2 V, I_C = 500 mA$	340	950	
	$h_{FE(3)}$	$V_{CE} = 2 V, I_C = 2 A$	150		
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 3 A, I_B = 100 mA$		0.35	V

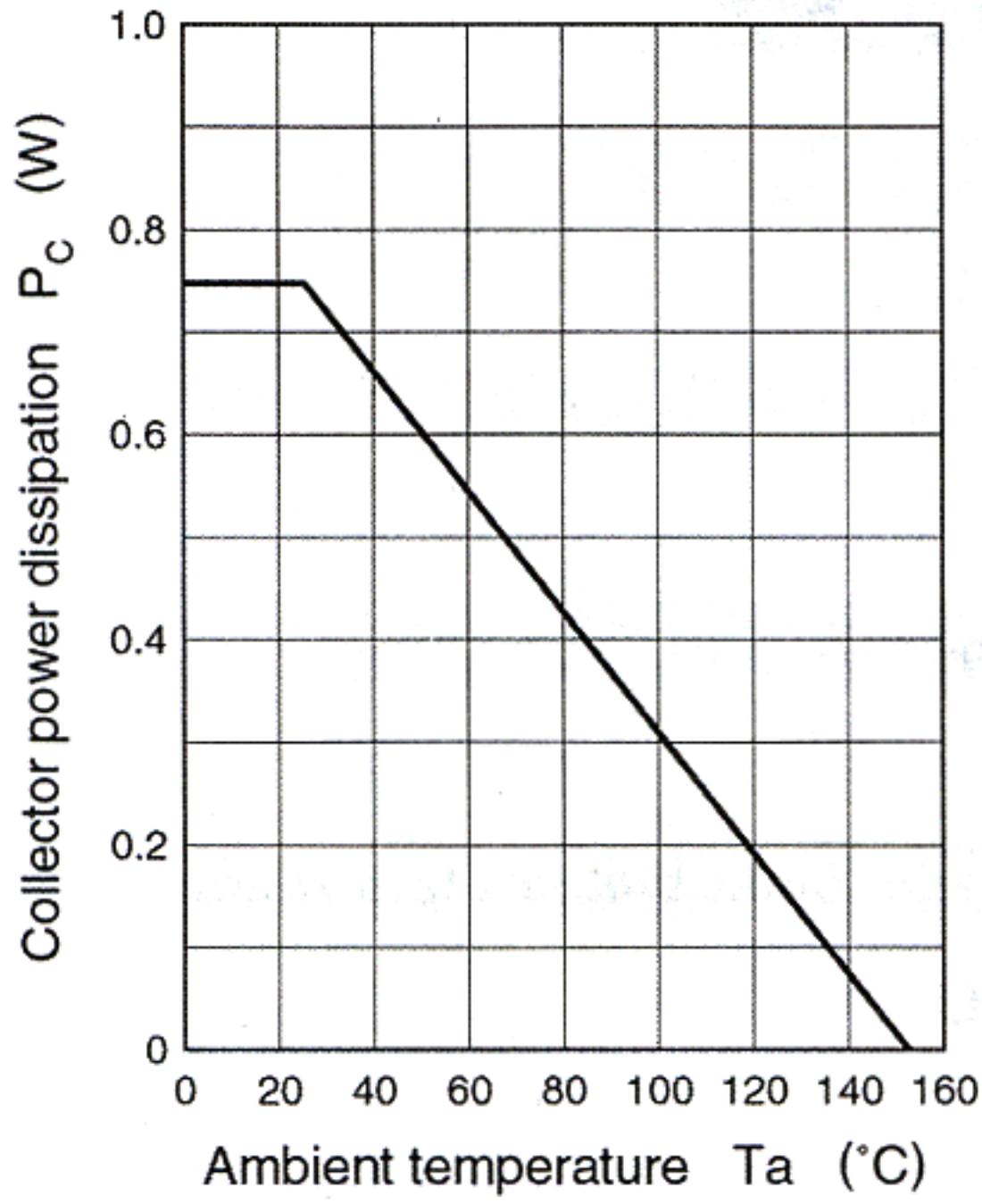
CLASSIFICATION OF $h_{FE(1)}$

Rank	R	T
Range	340-600	560-950

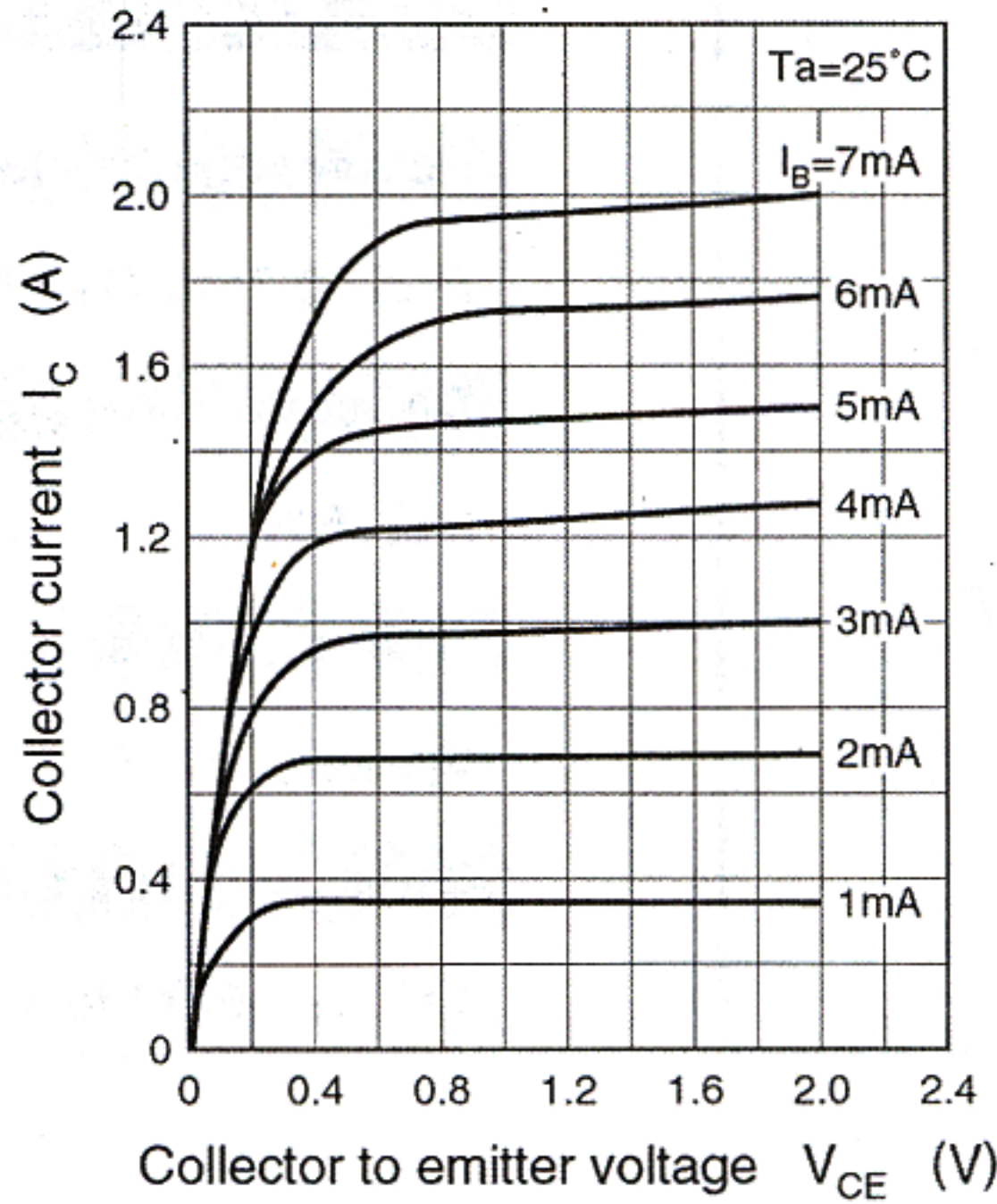
Typical Characteristics

D965

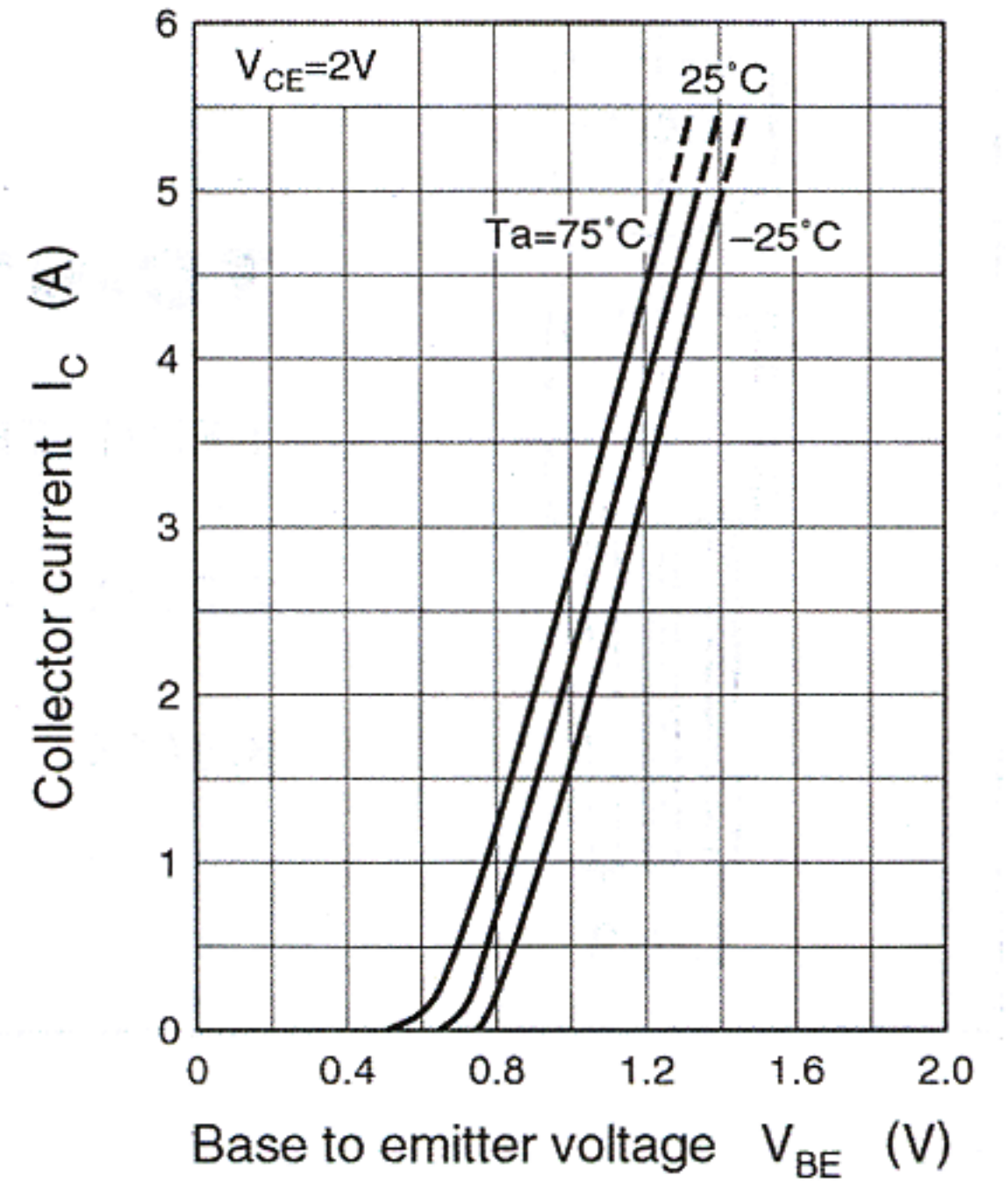
$P_C - T_a$



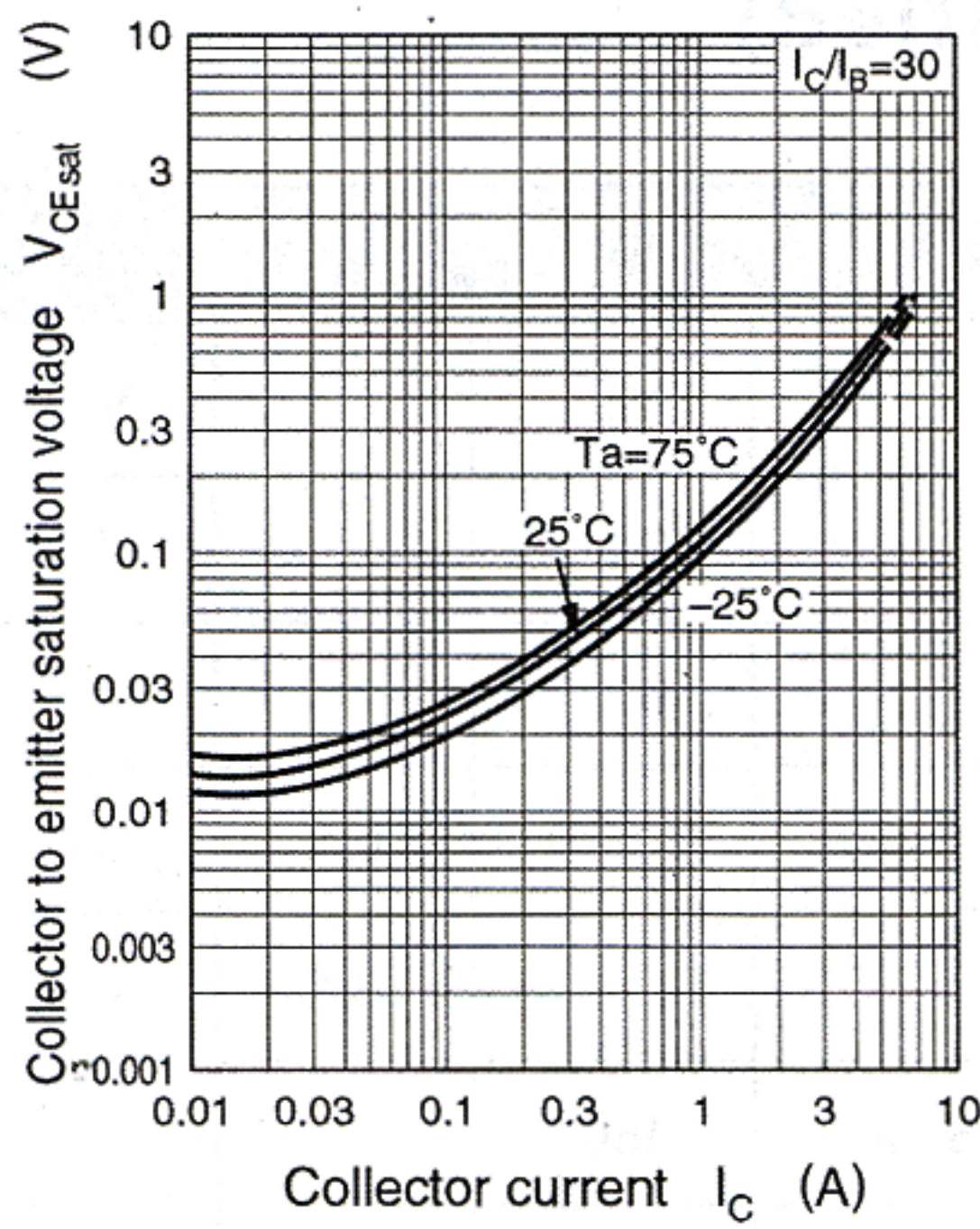
$I_C - V_{CE}$



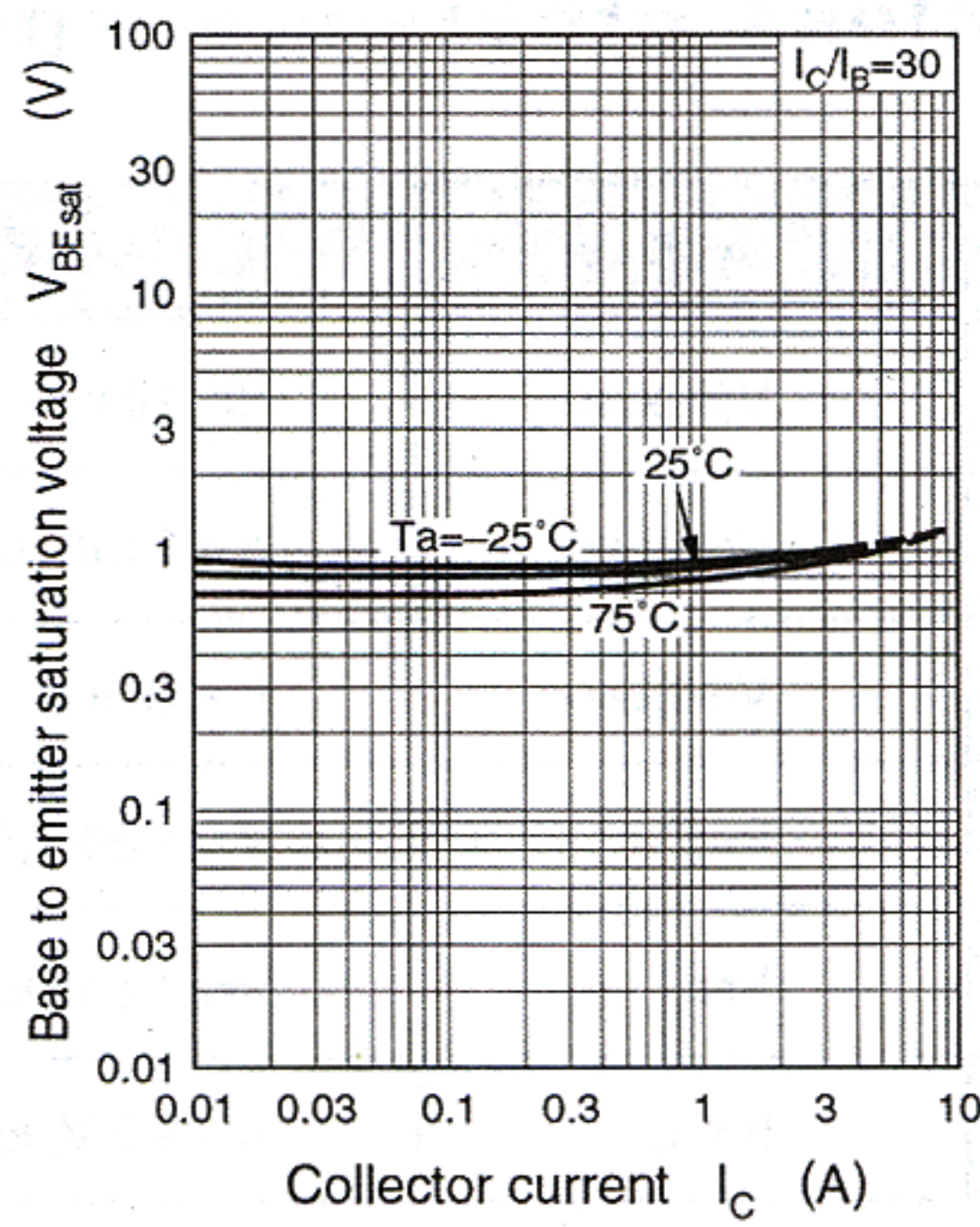
$I_C - V_{BE}$



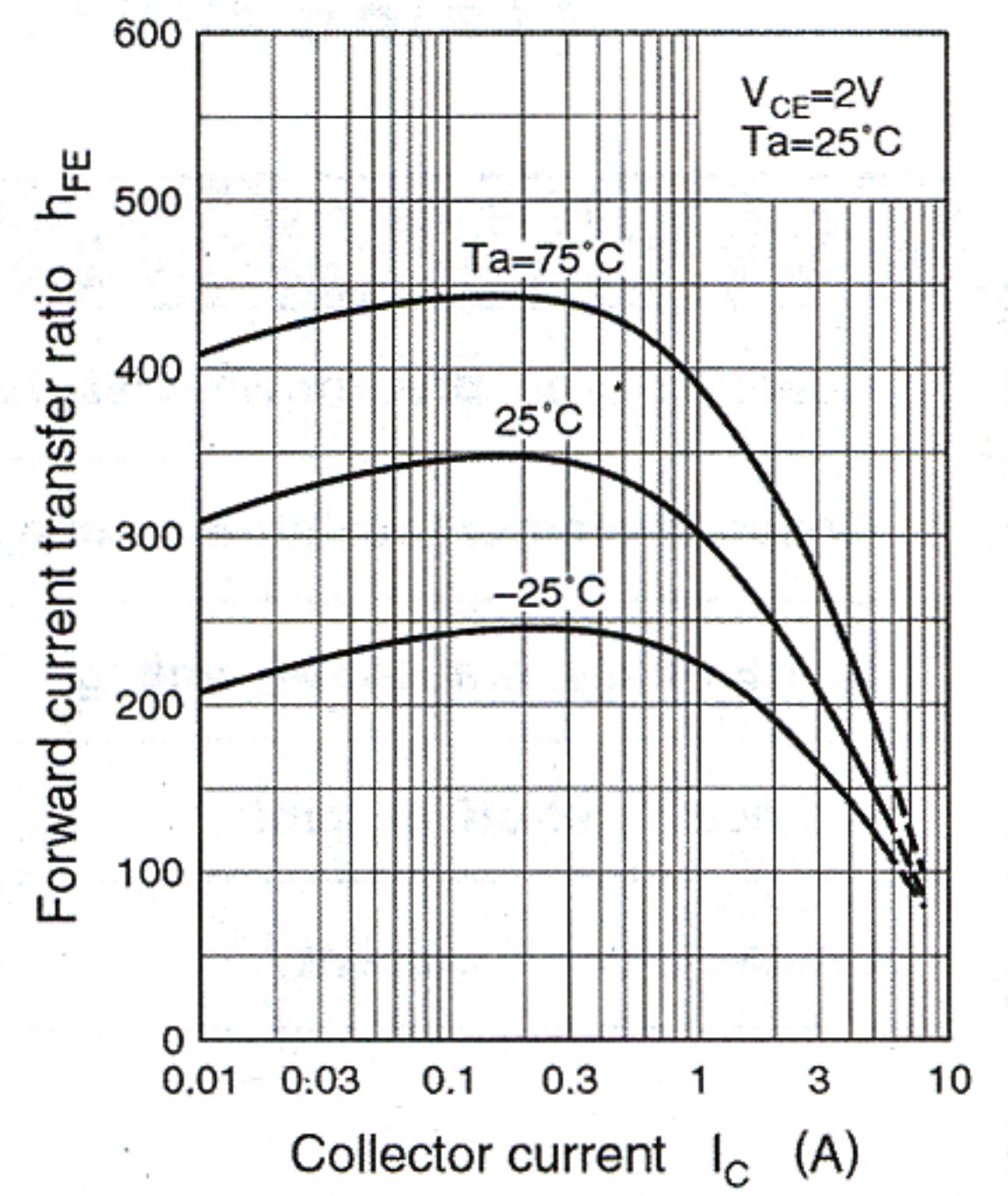
$V_{CE\text{sat}} - I_C$



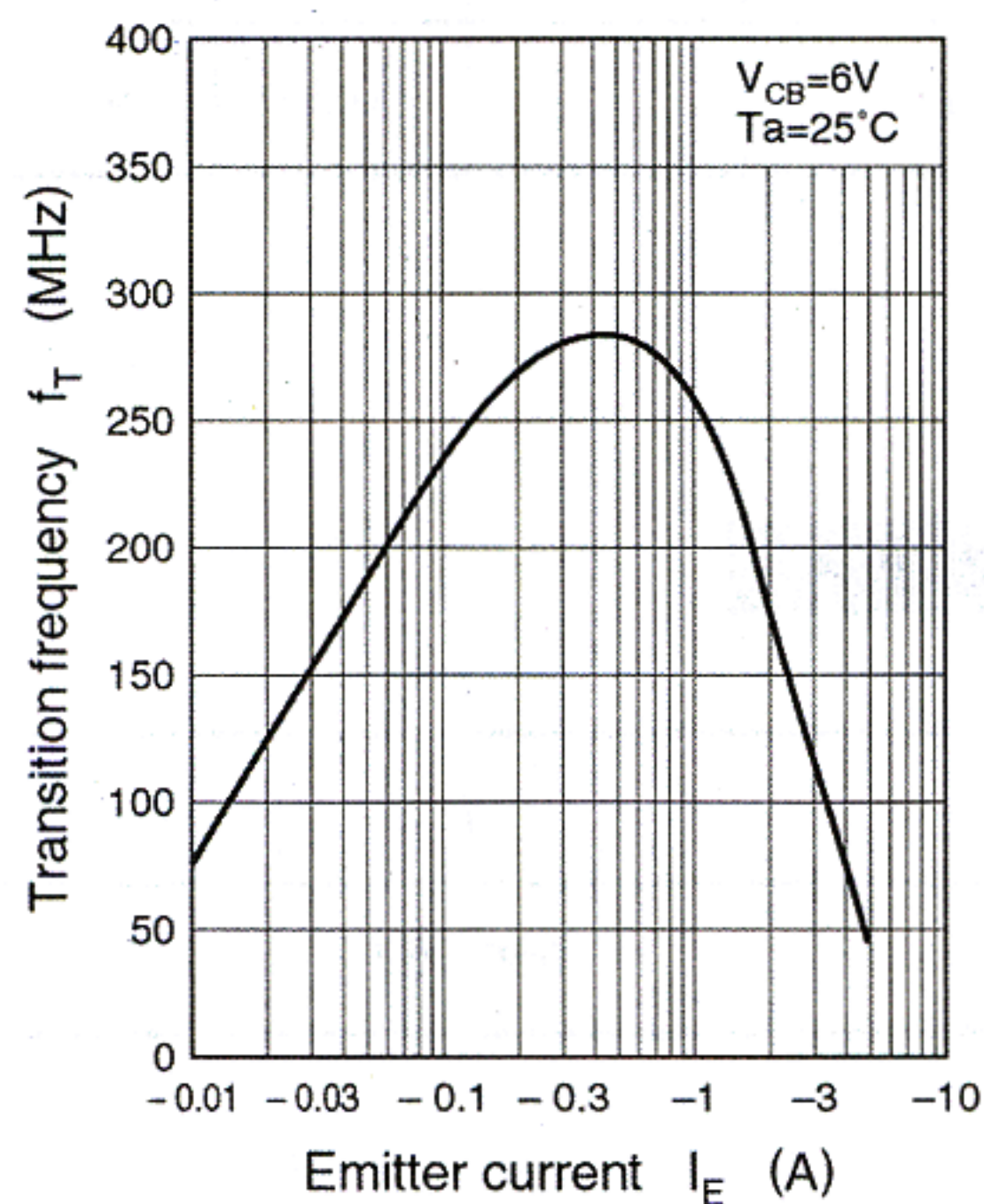
$V_{BE\text{sat}} - I_C$



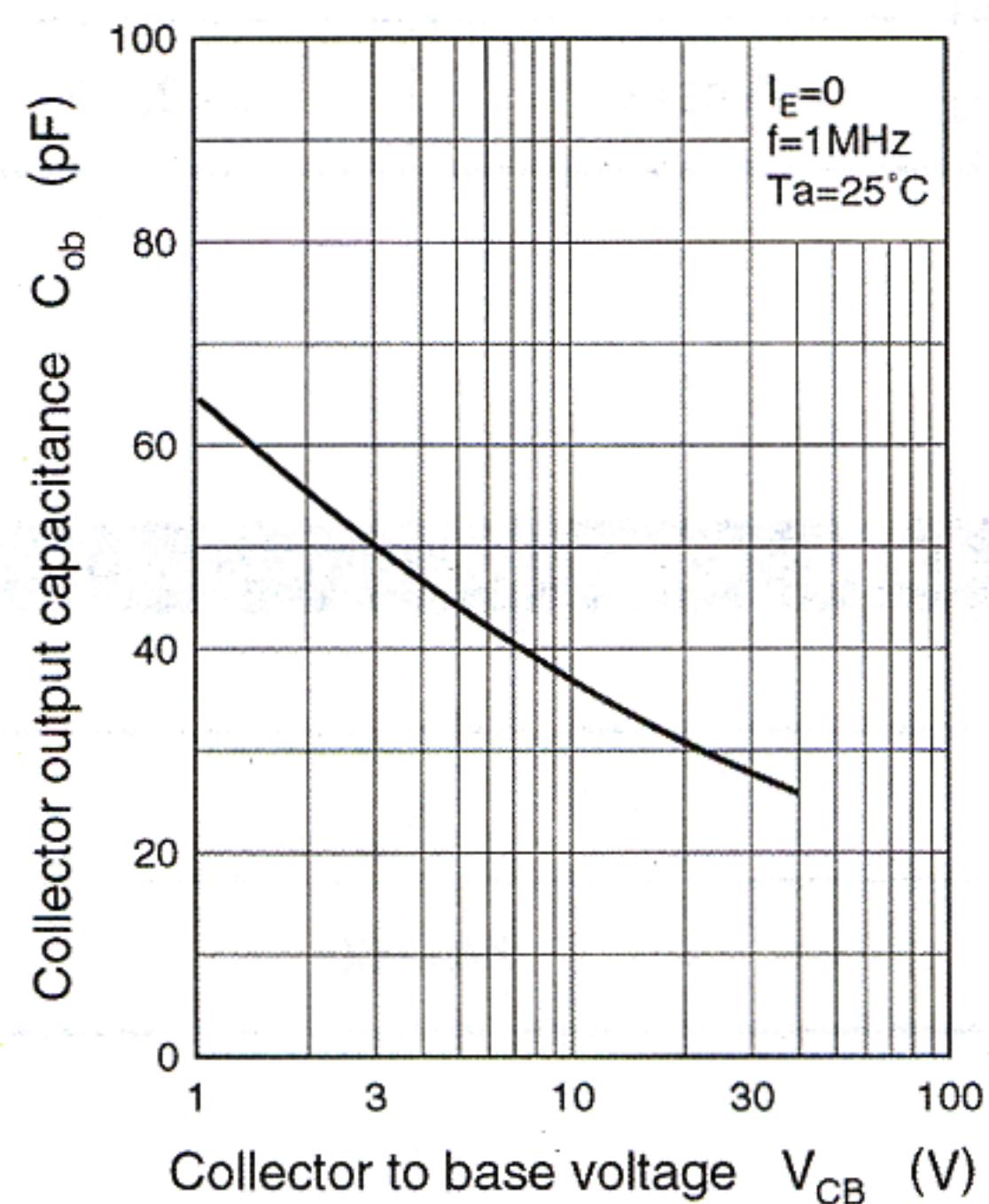
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



Area of safe operation (ASO)

