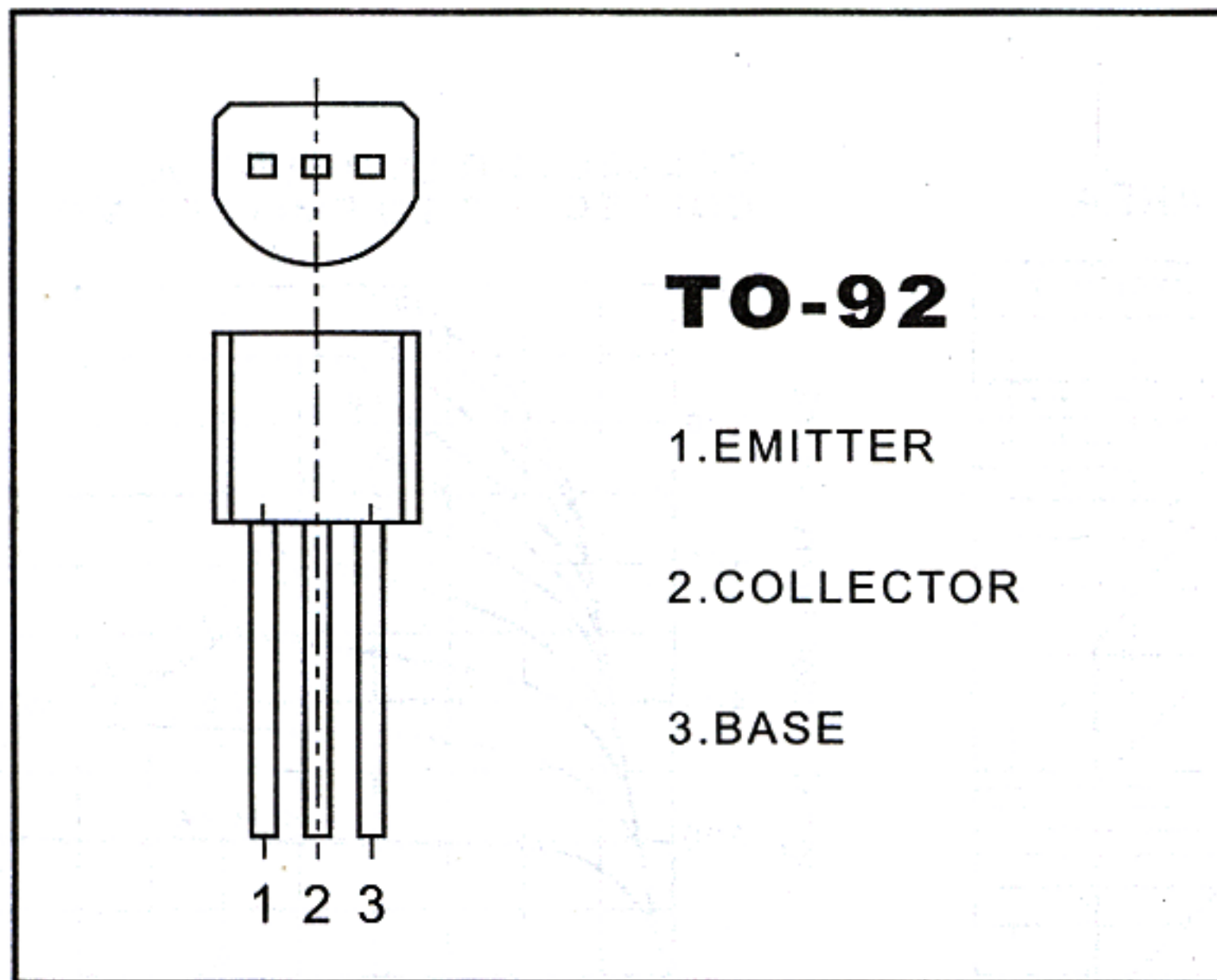


2SC2001 TRANSISTOR(NPN)



TO-92

- 1. EMITTER
- 2. COLLECTOR
- 3. BASE

FEATURES

Power dissipation

P_{CM} : 0.6W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.7A

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	$V_{(BR)CEO}$	$I_C = 10 mA, I_B = 0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 30 V, I_E = 0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 20 V, I_B = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$		0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1 V, I_C = 100 mA$	90	400	
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 700 mA, I_B = 70 mA$		0.6	V
Base-emitter saturation voltage	V_{BEsat}	$I_C = 700 mA, I_B = 70 mA$		1.2	V
Transition frequency	f_T	$V_{CE} = 6 V, I_C = 10 mA$ $f = 30 MHz$	50		MHz

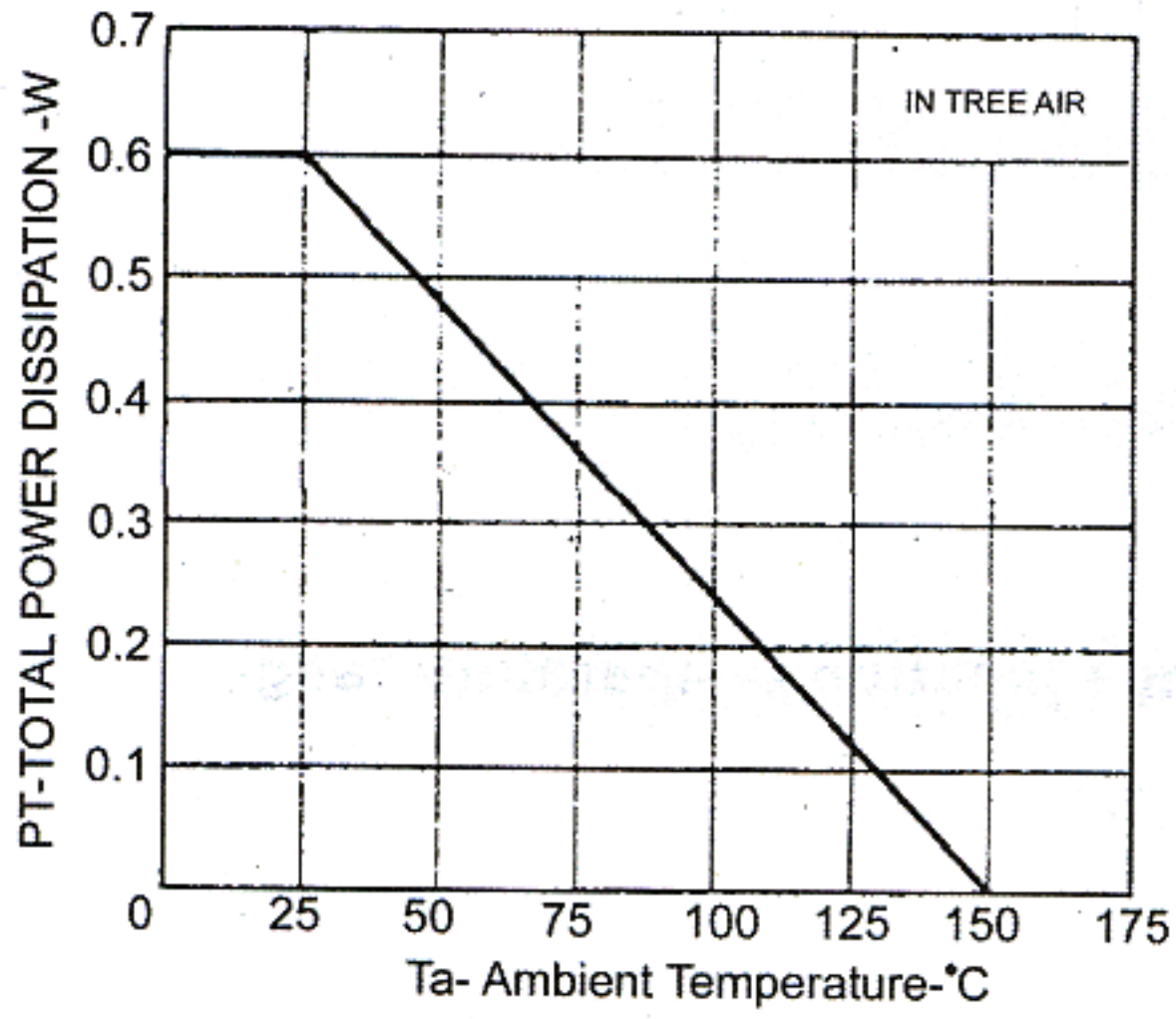
CLASSIFICATION OF h_{FE}

Rank	M	L	K
Range	90-180	135-270	200-400

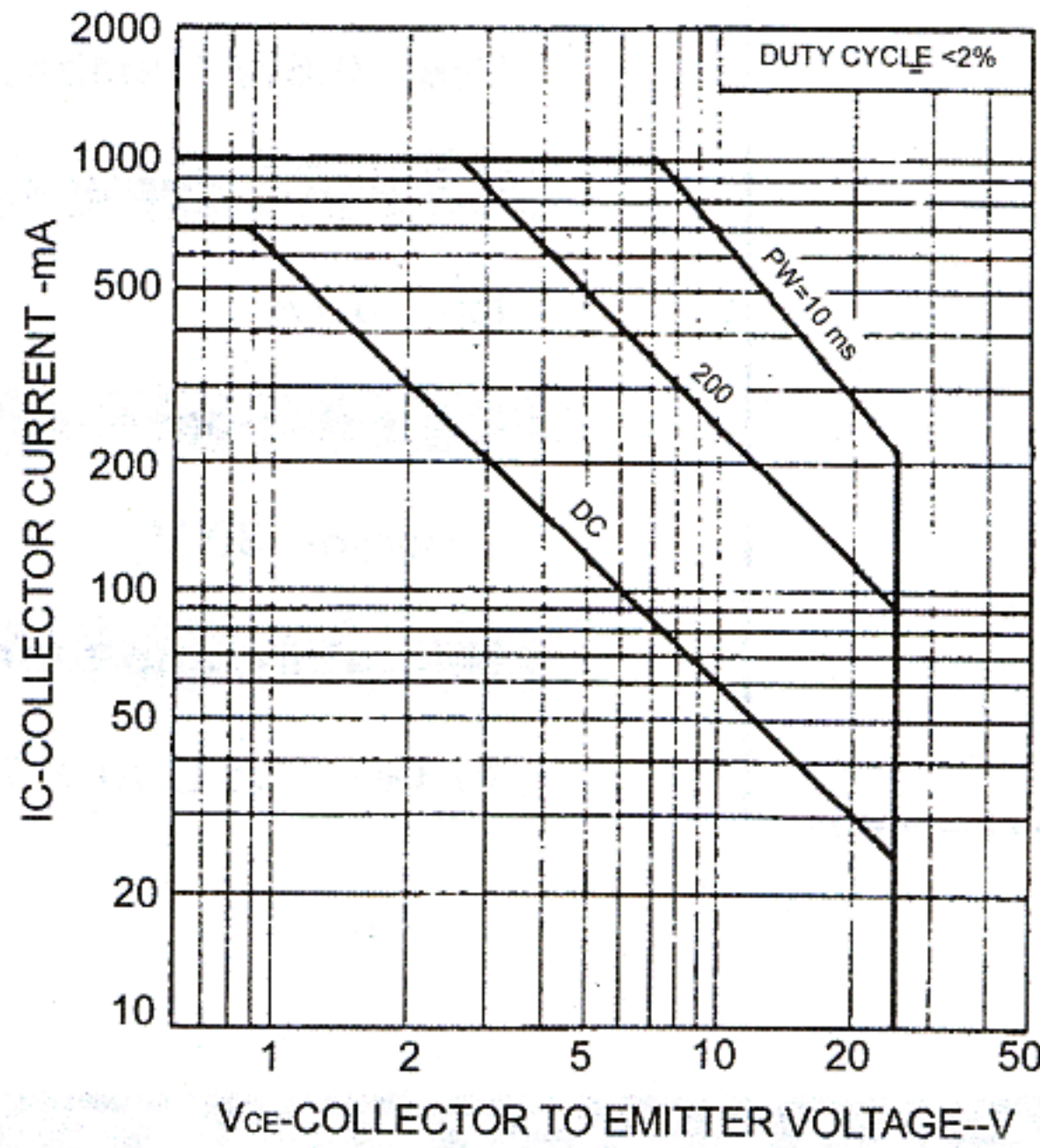
Typical Characteristics

2SC2001

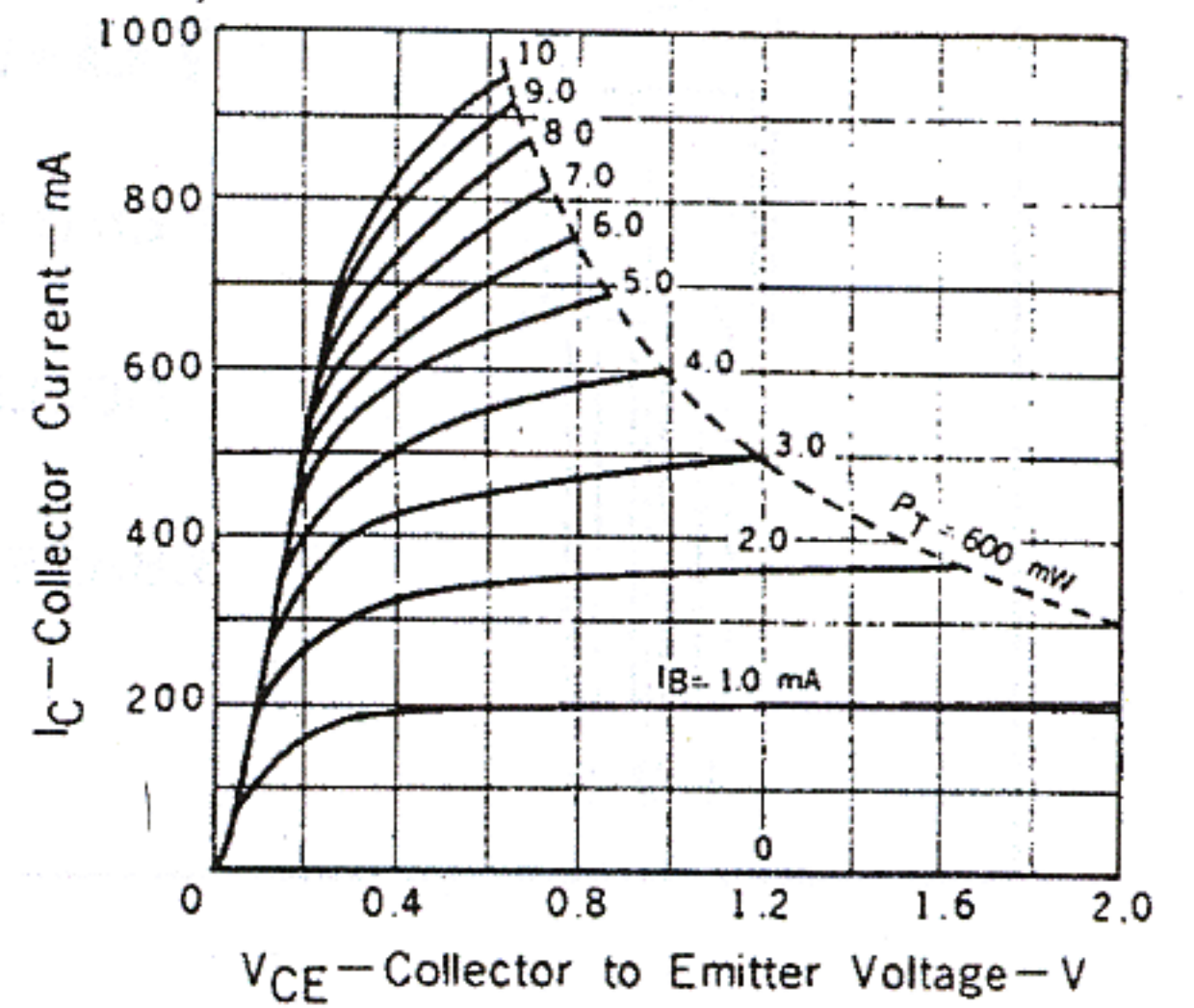
TOTAL POWER DISSIPATION VS AMBIENT TEMPERATURE



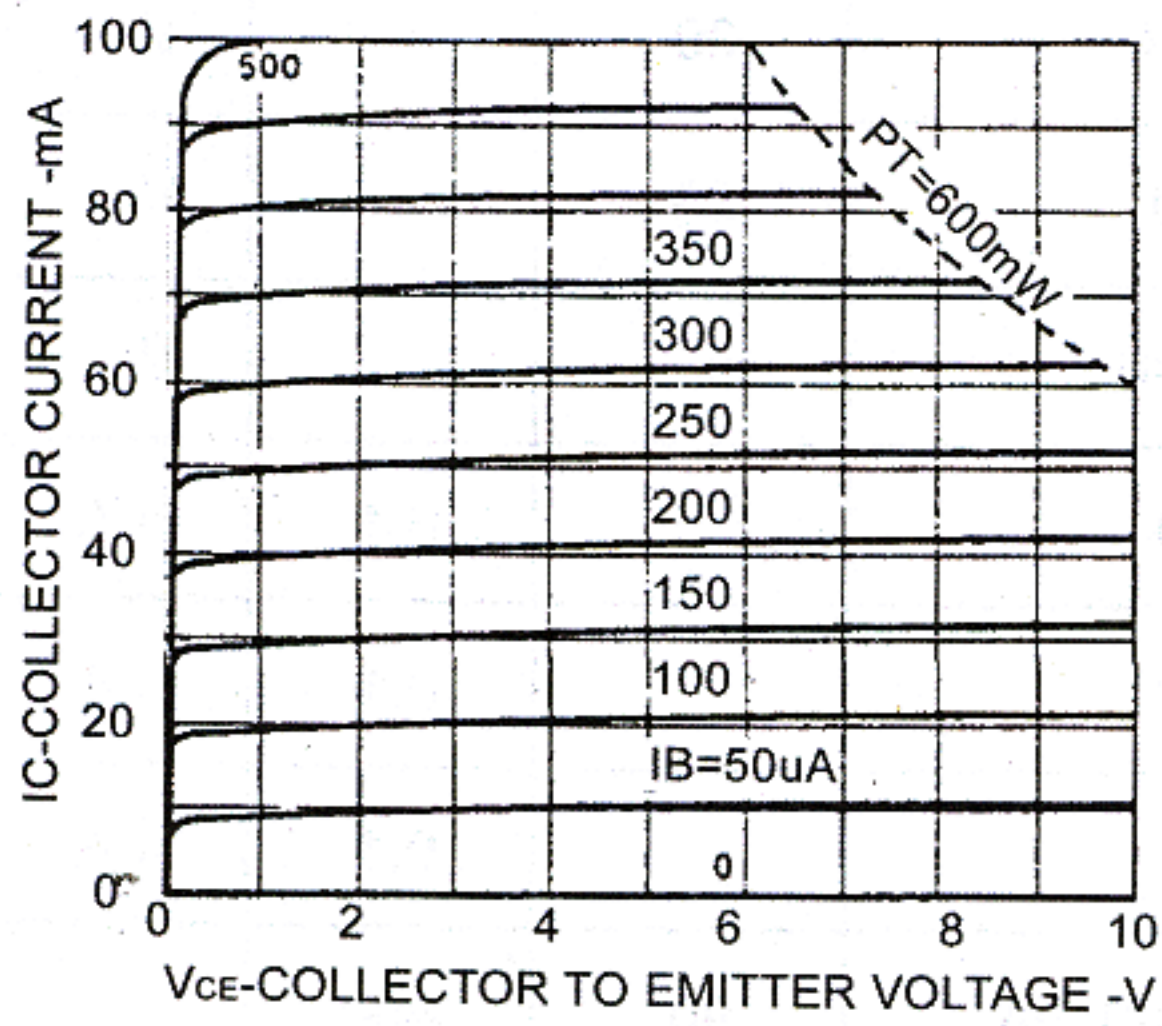
SAFE OPERATING AREA



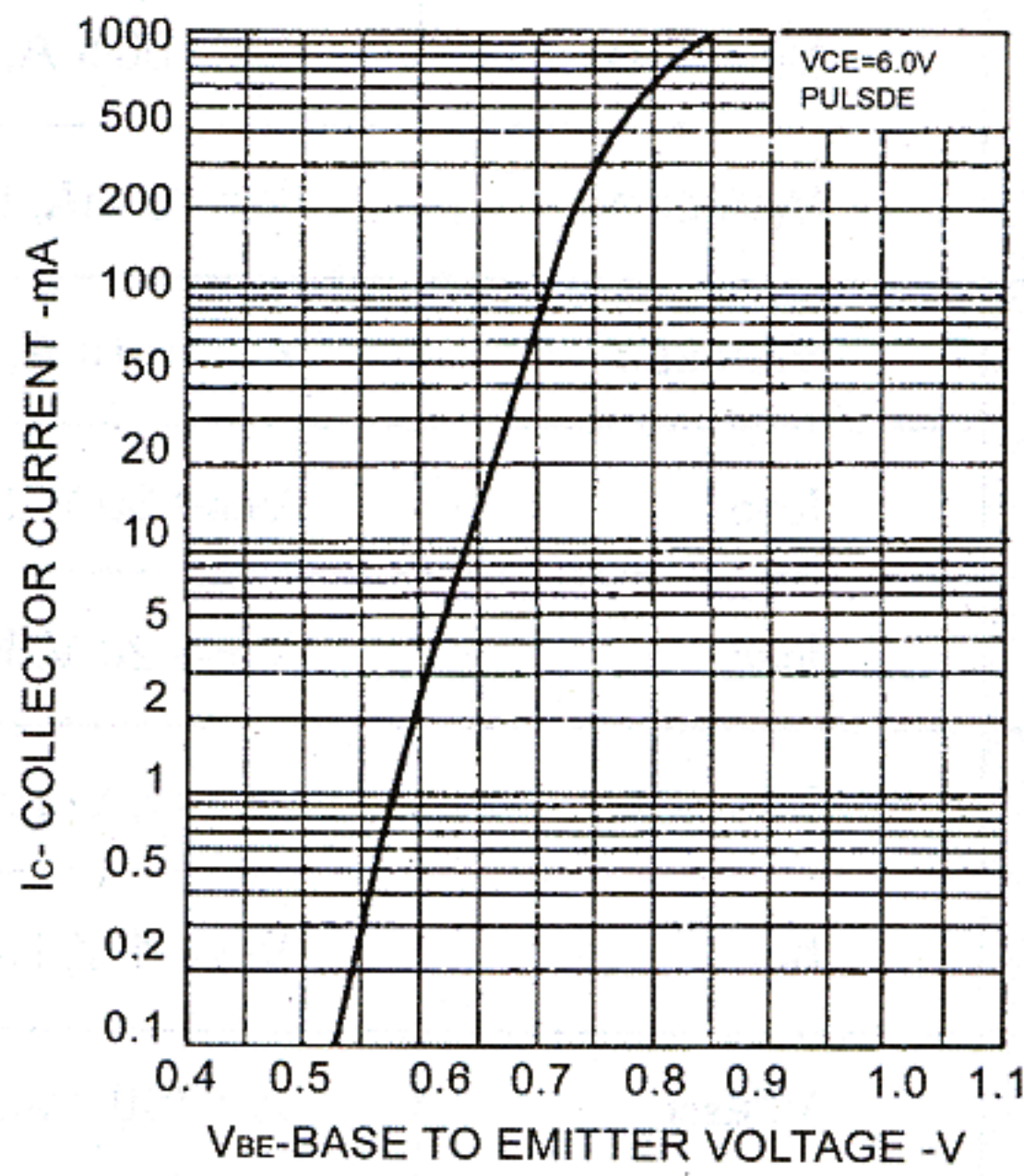
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



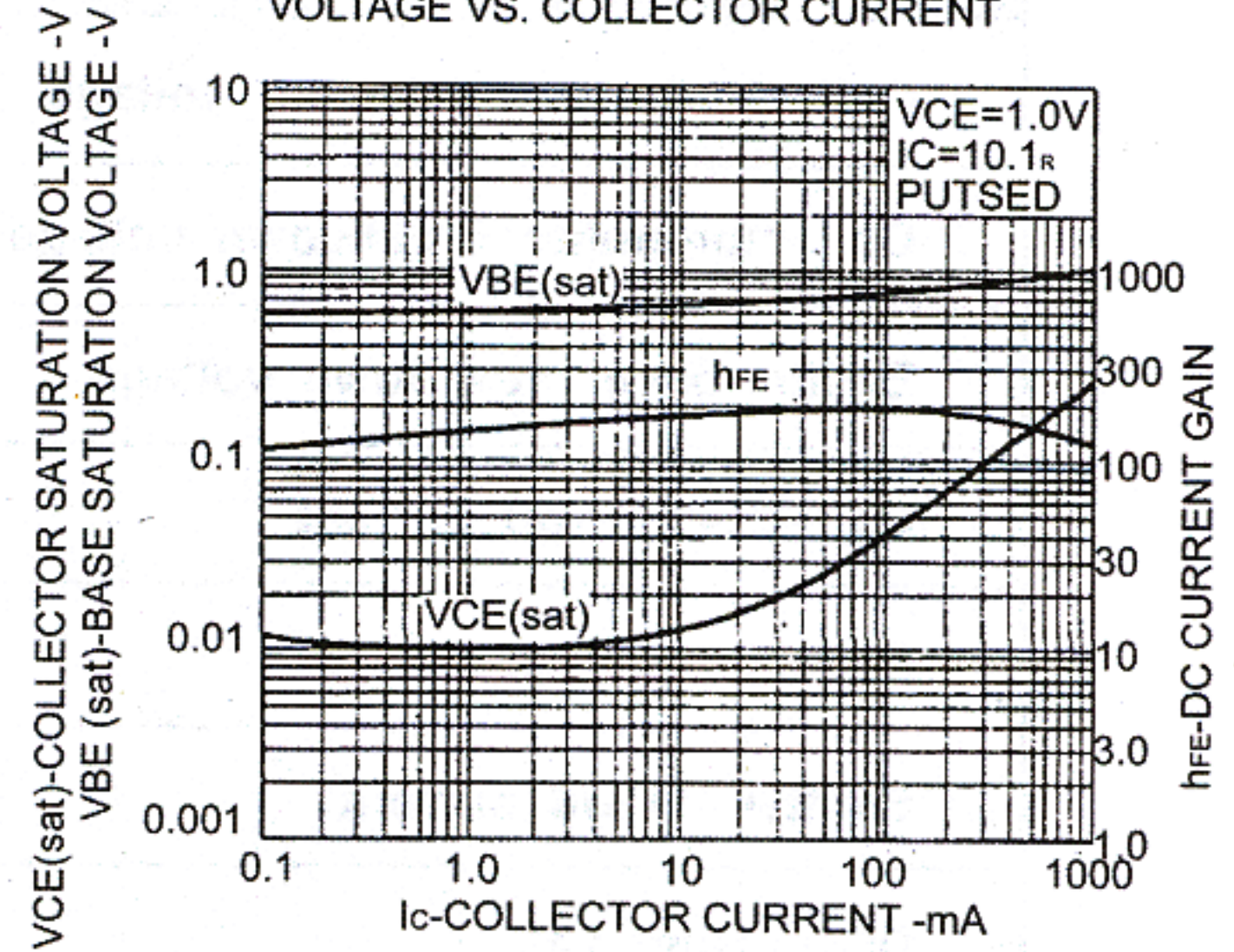
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



DC CURRENT GAIN, BASE AND COLLECTOR SATURATION VOLTAGE VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. EMITTER CURRENT

