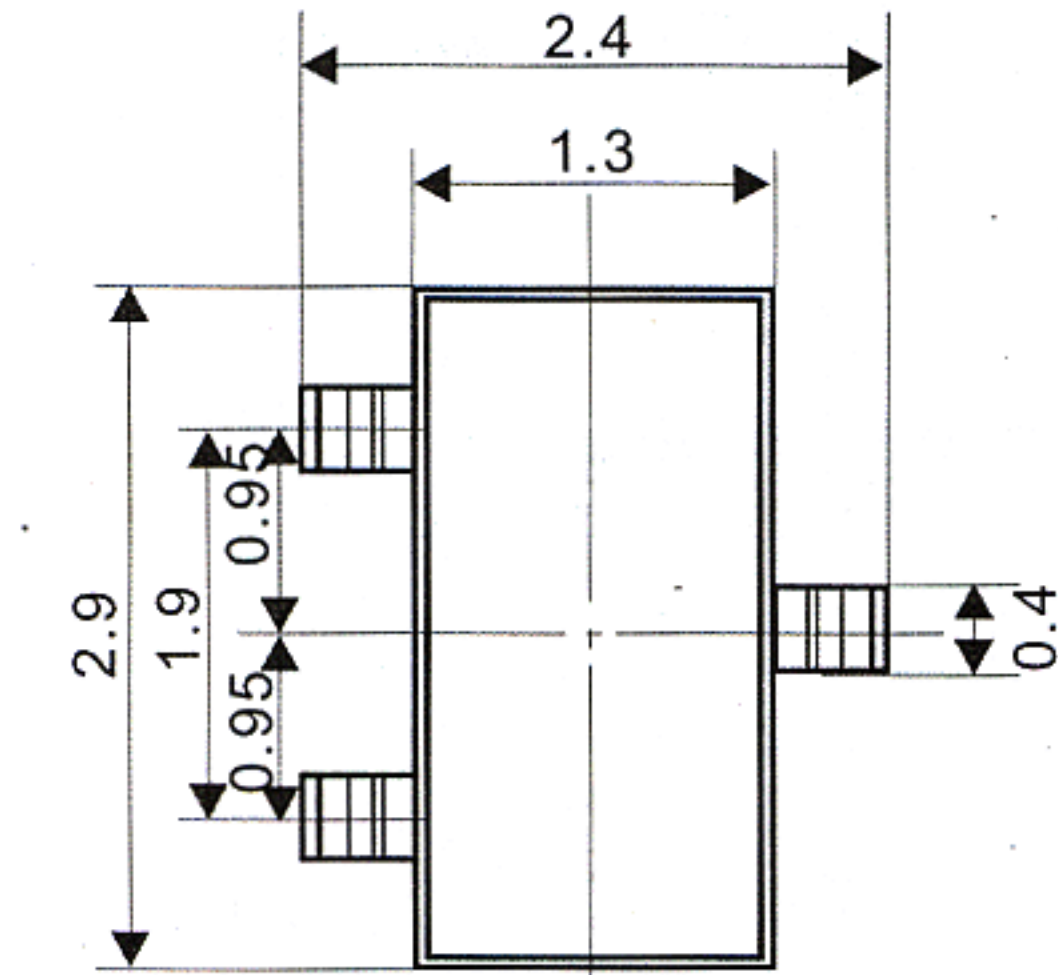
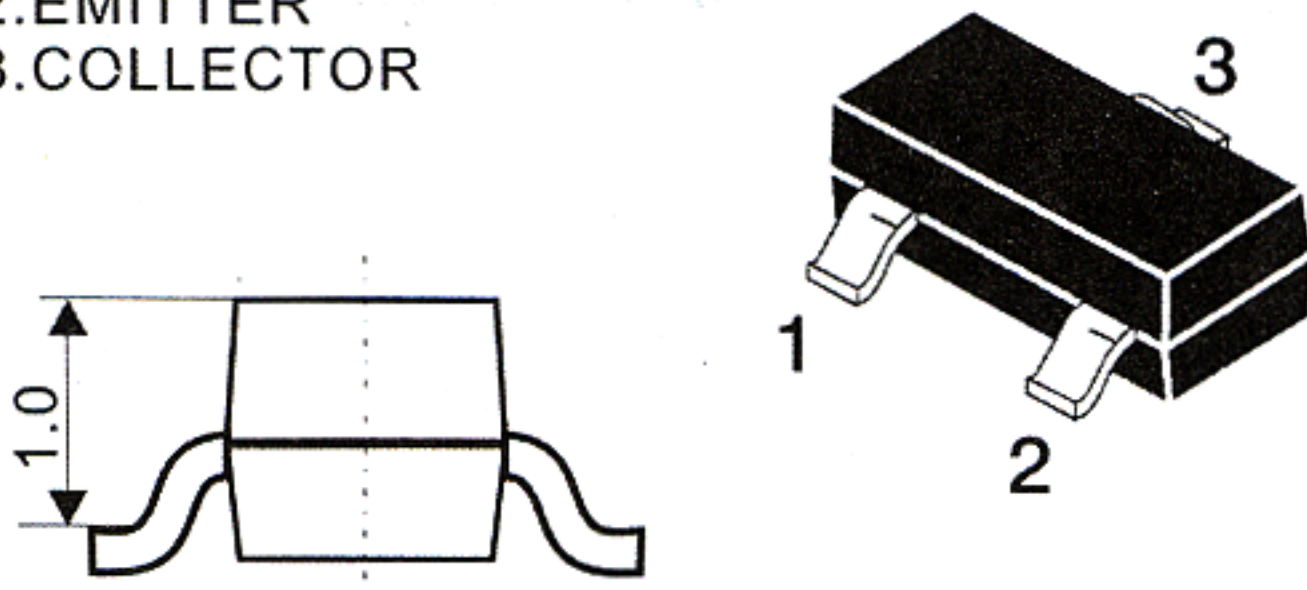


SOT-23 Plastic-Encapsulate Transistors

S9012LT1 TRANSISTOR (PNP)

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



UNIT: mm

FEATURES

Power dissipation

$P_{CM} : 0.3 \text{ W (} T_{amb}=25^{\circ}\text{C)}$

Collector current

$I_{CM} : -0.5 \text{ A}$

Collector-base voltage

$V_{(BR)CBO} : -40\text{V}$

Operating and storage junction temperature range

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

ELECTRICAL CHARACTERISTICS

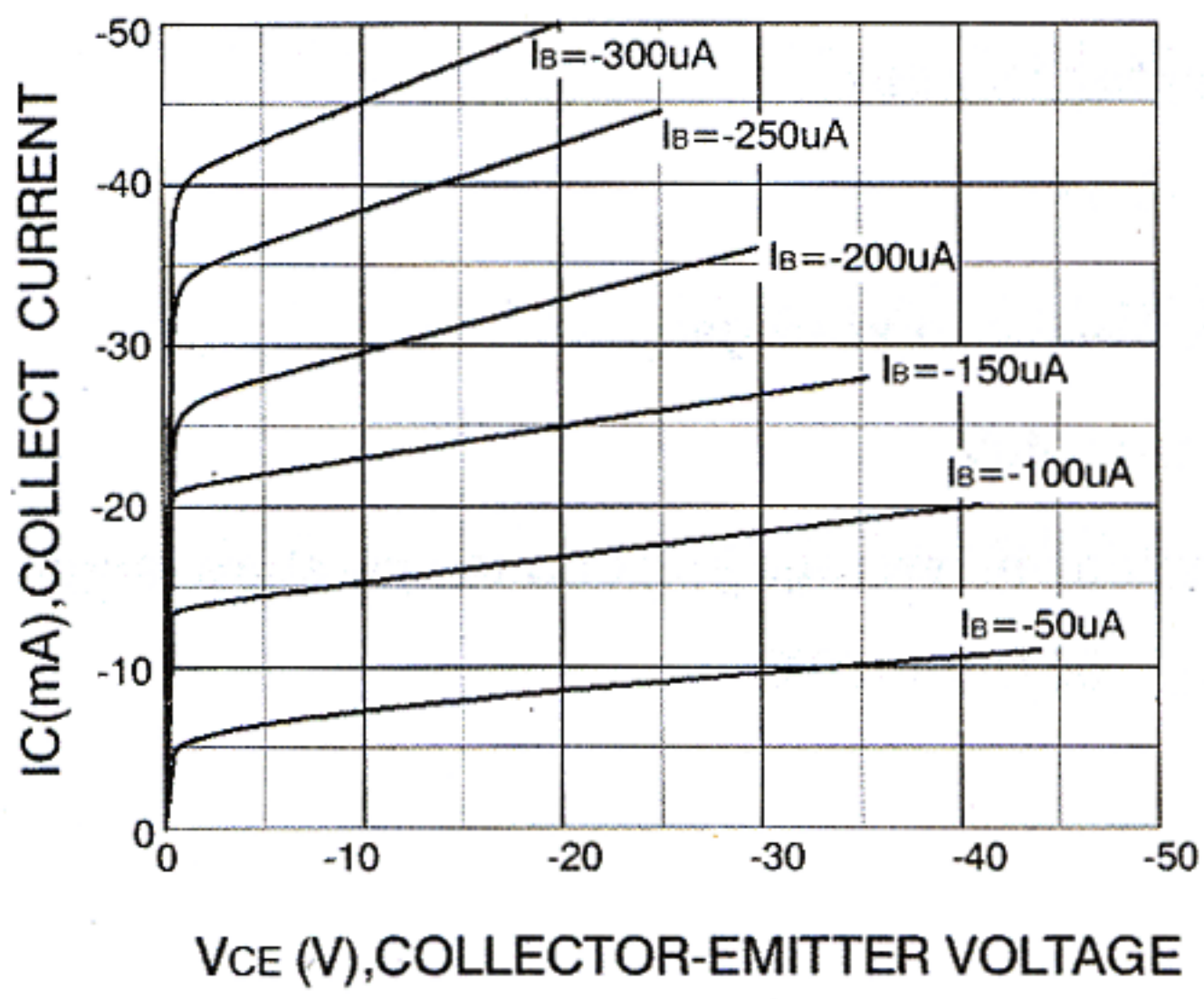
($T_{amp}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100 \mu\text{A}, I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-0.1\text{mA}, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100 \mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-40\text{V}, I_E=0$			-0.1	μA
	I_{CEO}	$V_{CE}=-20\text{V}, I_B=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}, I_C=-50\text{mA}$	120		350	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}, I_C=-500\text{mA}$	40			
Collector-emitter saturation voltage	V_{CEsat}	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.6	V
Base-emitter saturation voltage	V_{BEsat}	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-1.2	V
Base-emitter voltage	V_{BEF}	$I_E=-100\text{mA}$			-1.4	V
Transition frequency	f_T	$V_{CE}=-6\text{V}, I_C=-20\text{mA}$ $f=30\text{MHz}$	150			MHz

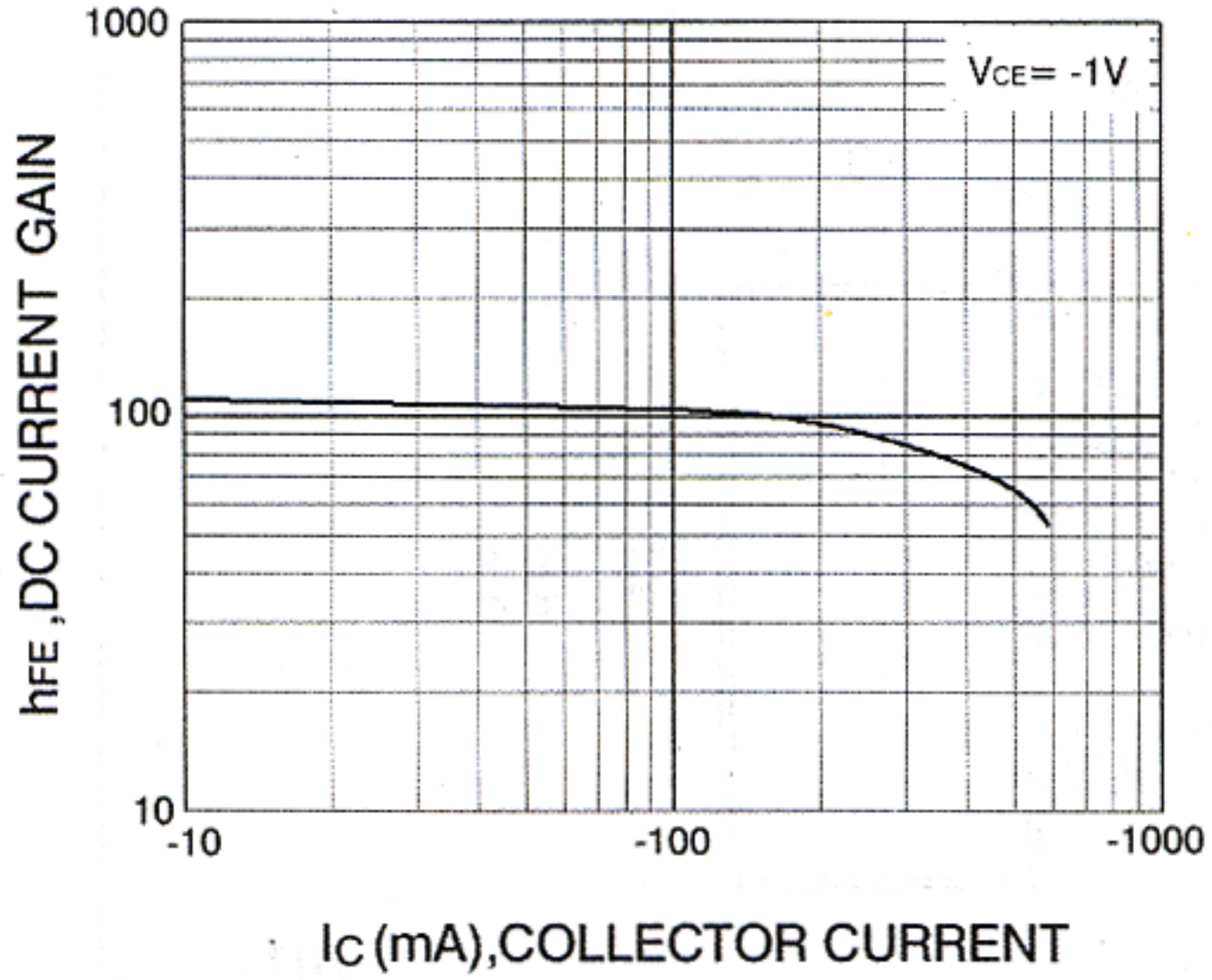
CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	120-200	200-350

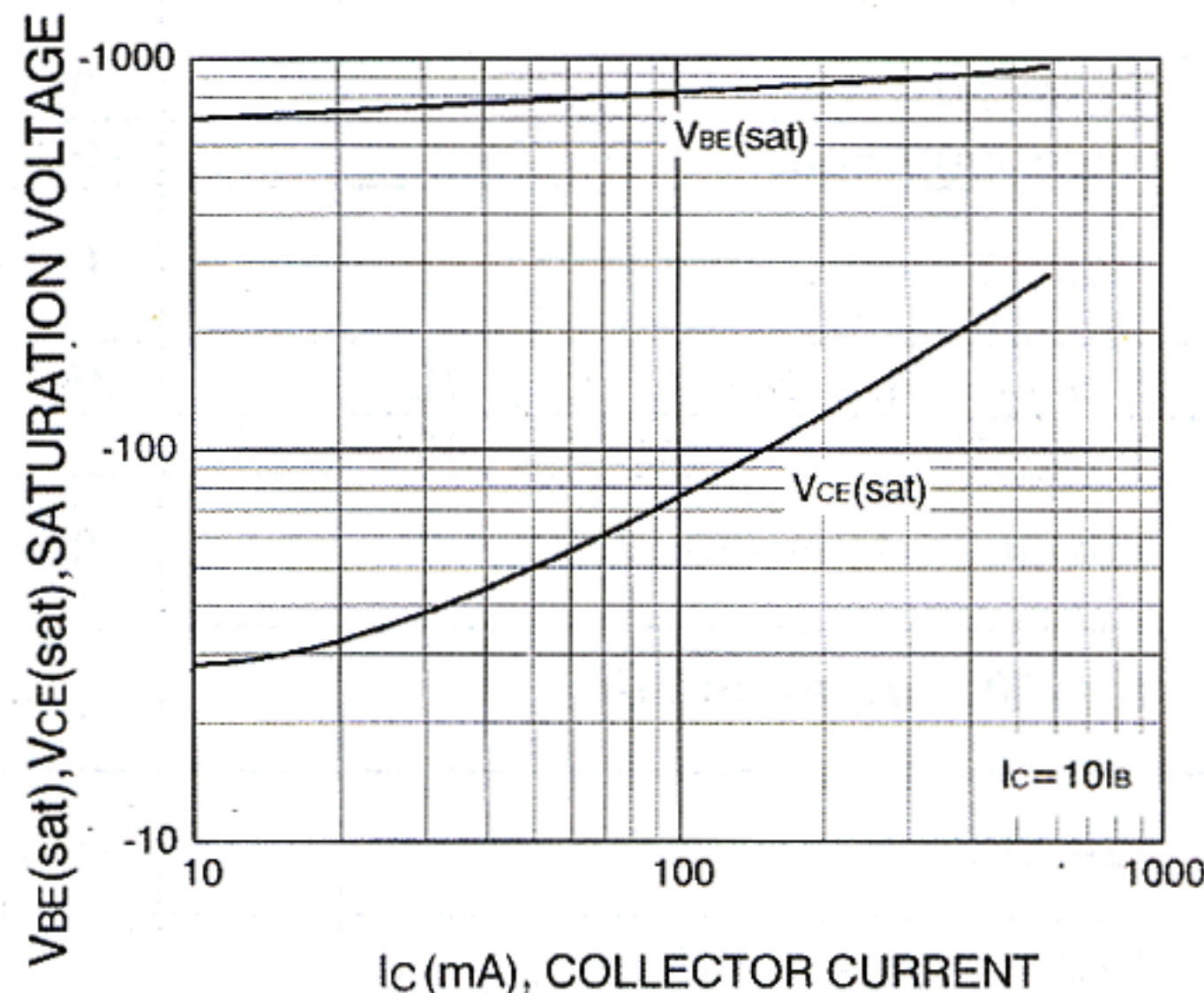
DEVICE MARKING: S9012LT1=2T1



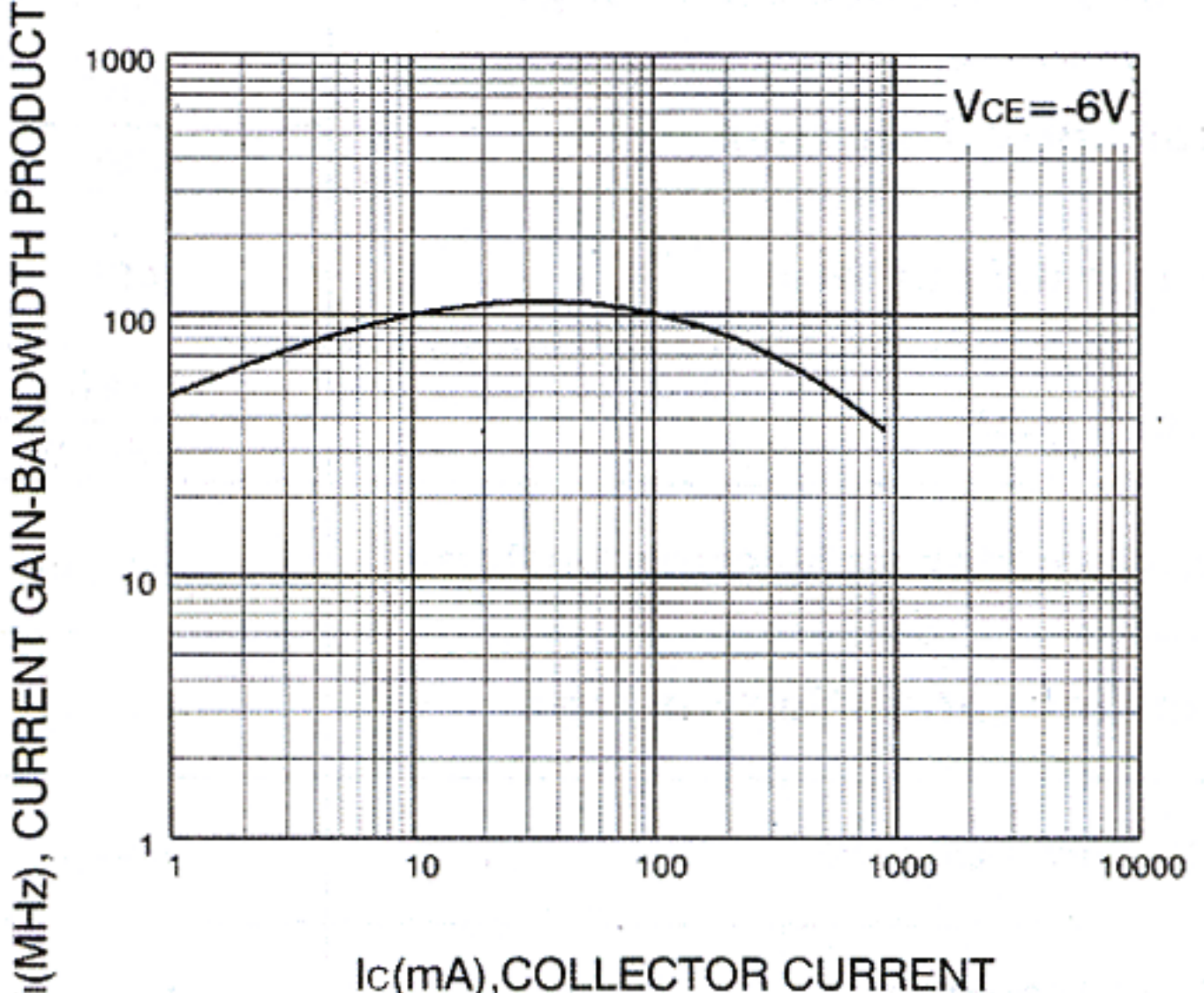
Static Characteristic



DC current Gain



**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Current Gain Bandwidth Product