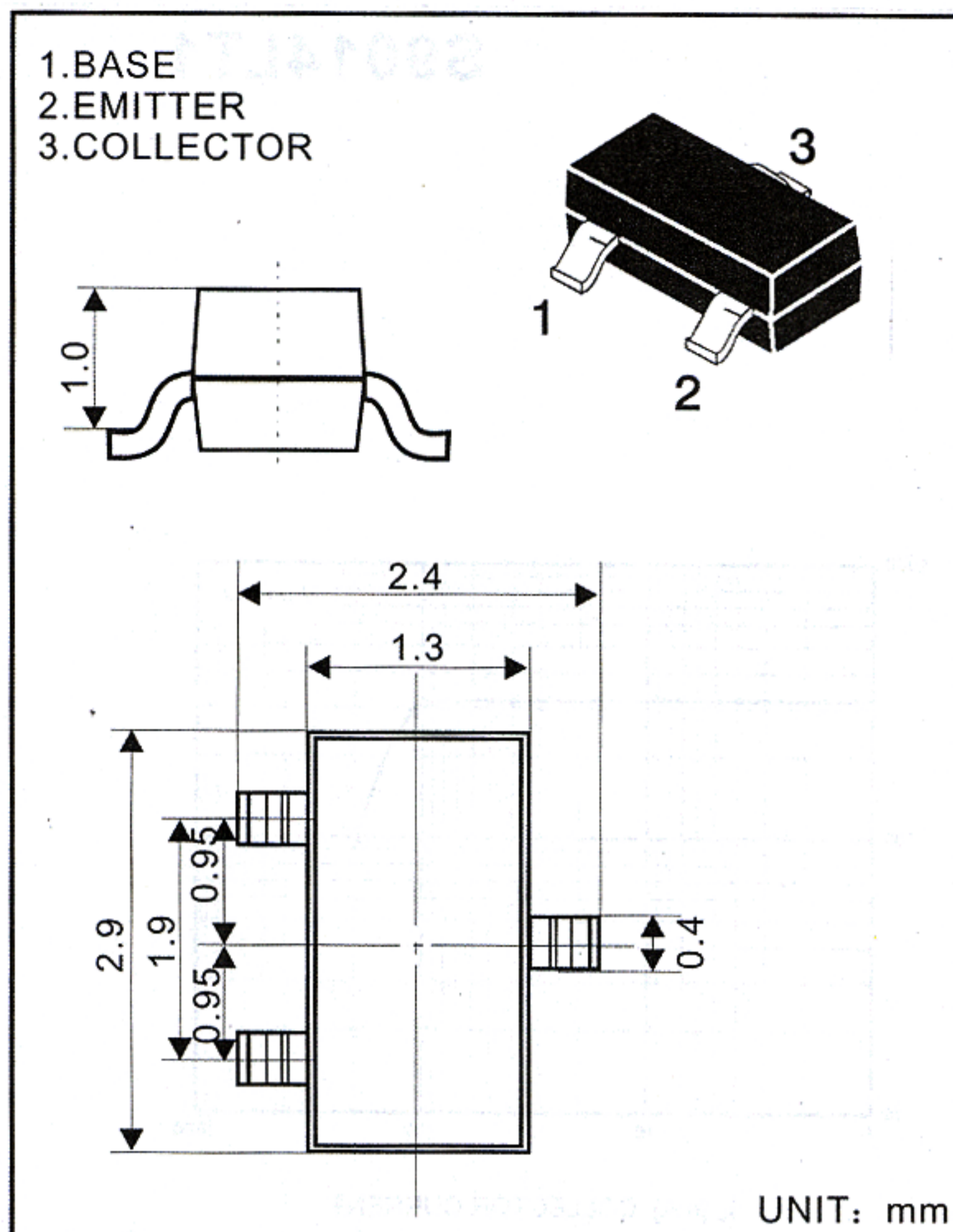


# SOT-23 Plastic-Encapsulate Transistors

## S9014LT1 TRANSISTOR (NPN)



### FEATURES

#### Power dissipation

$P_{CM}$ : 0.2 W ( $T_{amb}=25^{\circ}C$ )

#### Collector current

$I_{CM}$ : 0.1 A

#### Collector-base voltage

$V_{(BR)CBO}$ : 50V

#### Operating and storage junction temperature range

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

### ELECTRICAL CHARACTERISTICS

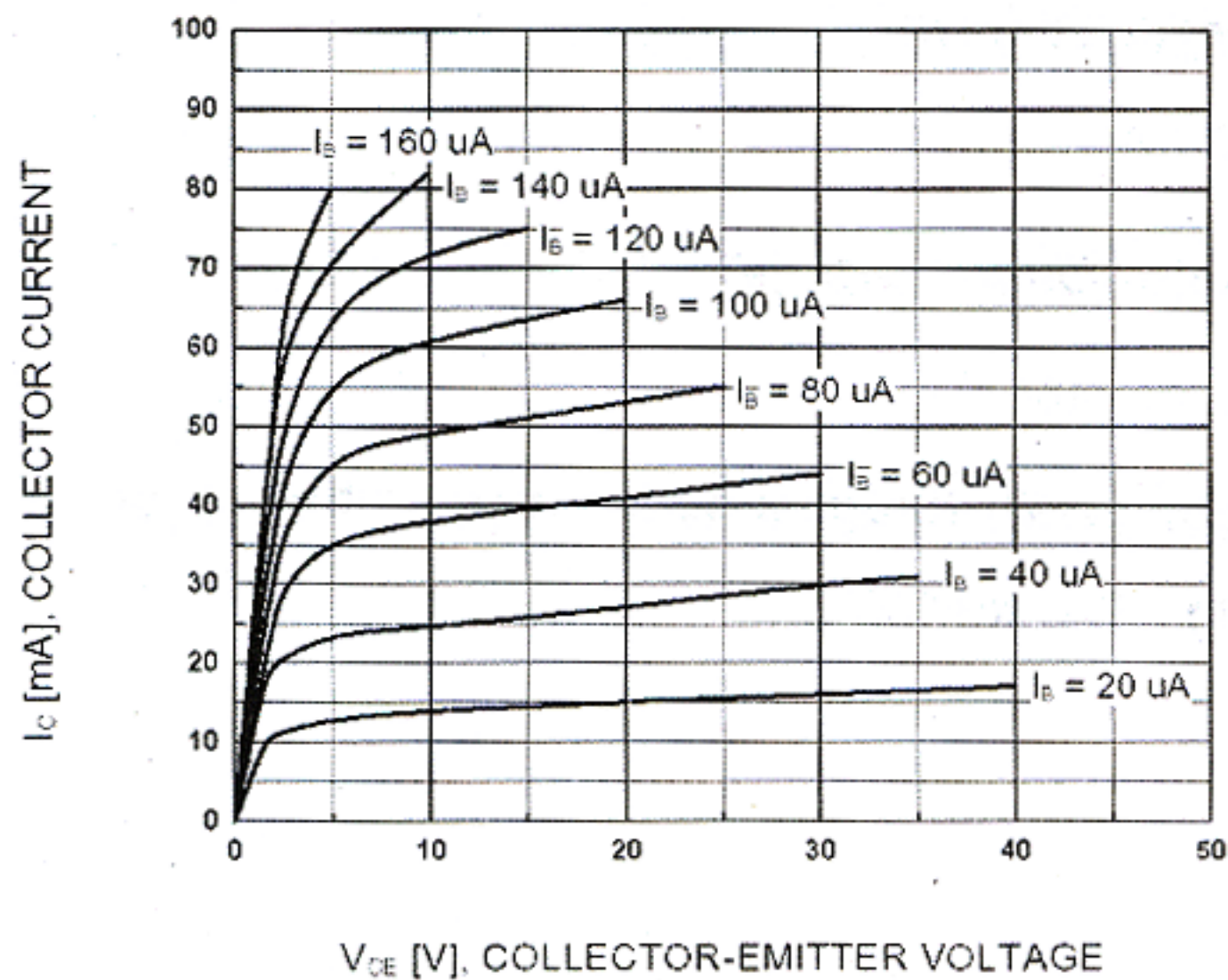
( $T_{amp}=25^{\circ}C$  unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=35V, I_B=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3V, I_C=0mA$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=5V, I_C=1mA$	200		1000	
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C=100mA, I_B=5mA$			0.3	V
Base-emitter saturation voltage	$V_{BEsat}$	$I_C=100mA, I_B=5mA$			1	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA$ $f=30MHz$	150			MHz

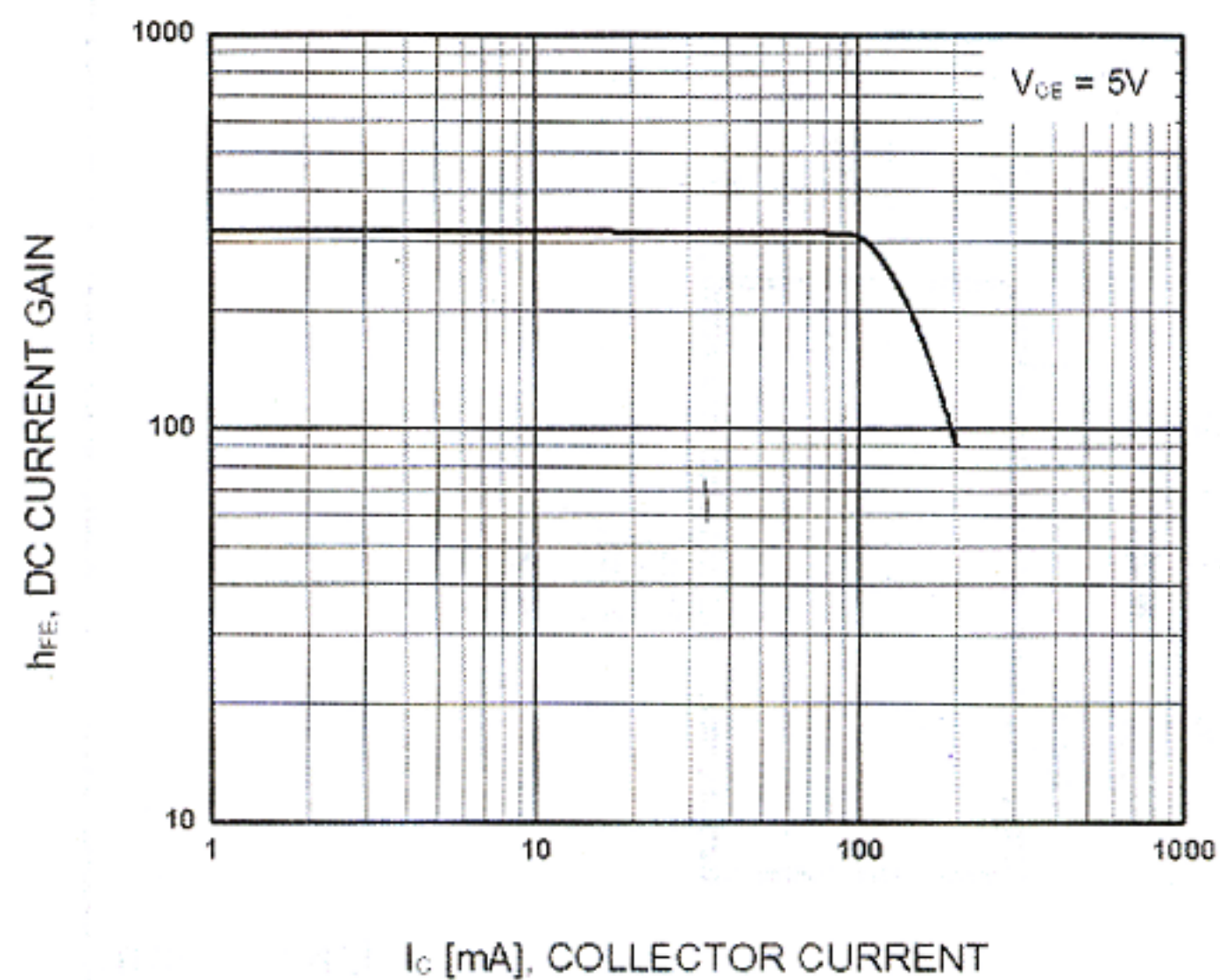
### CLASSIFICATION OF $h_{FE}$

Rank	L	H
Range	200-450	450-1000

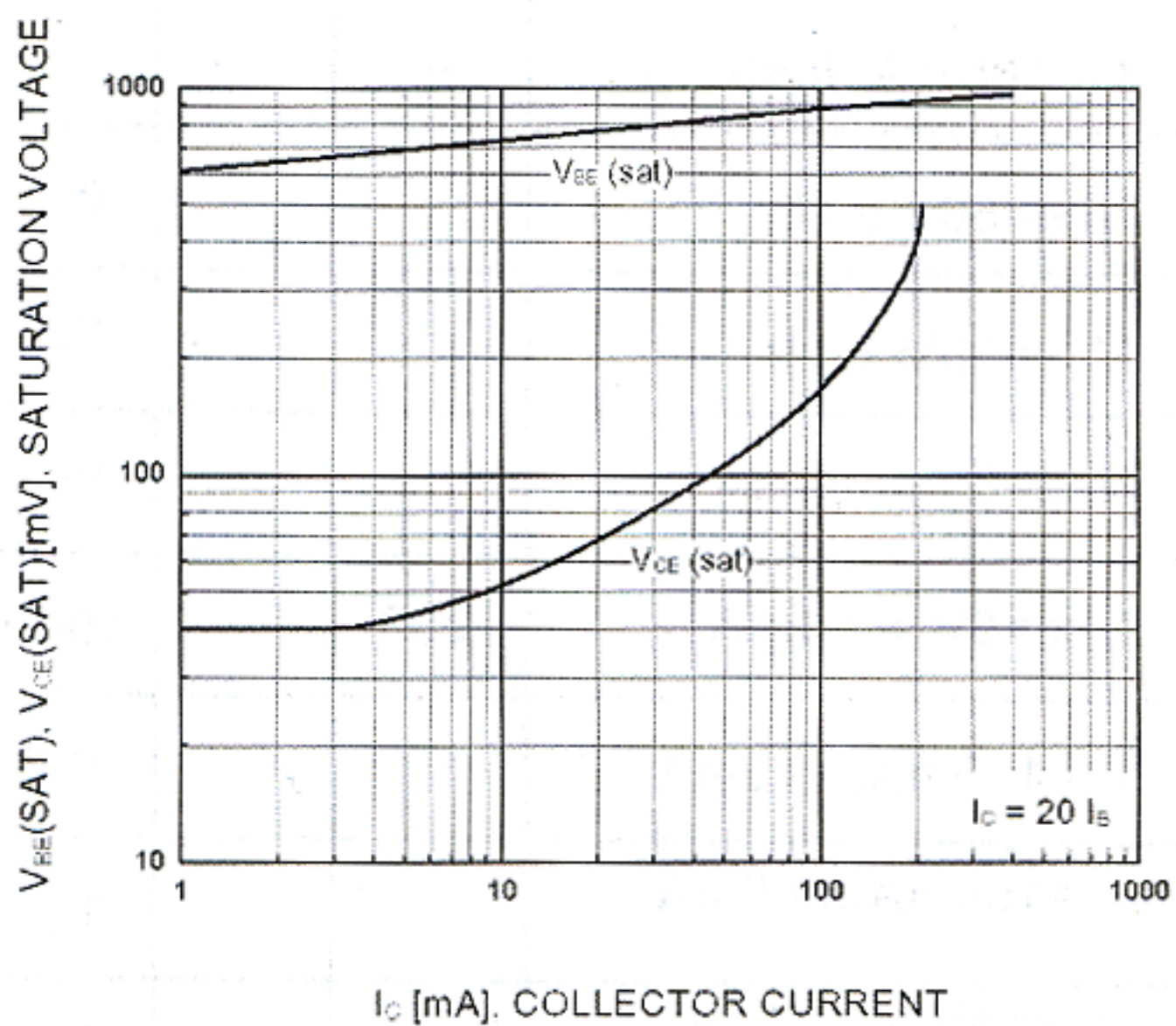
DEVICE MARKING : S9014LT1=J6



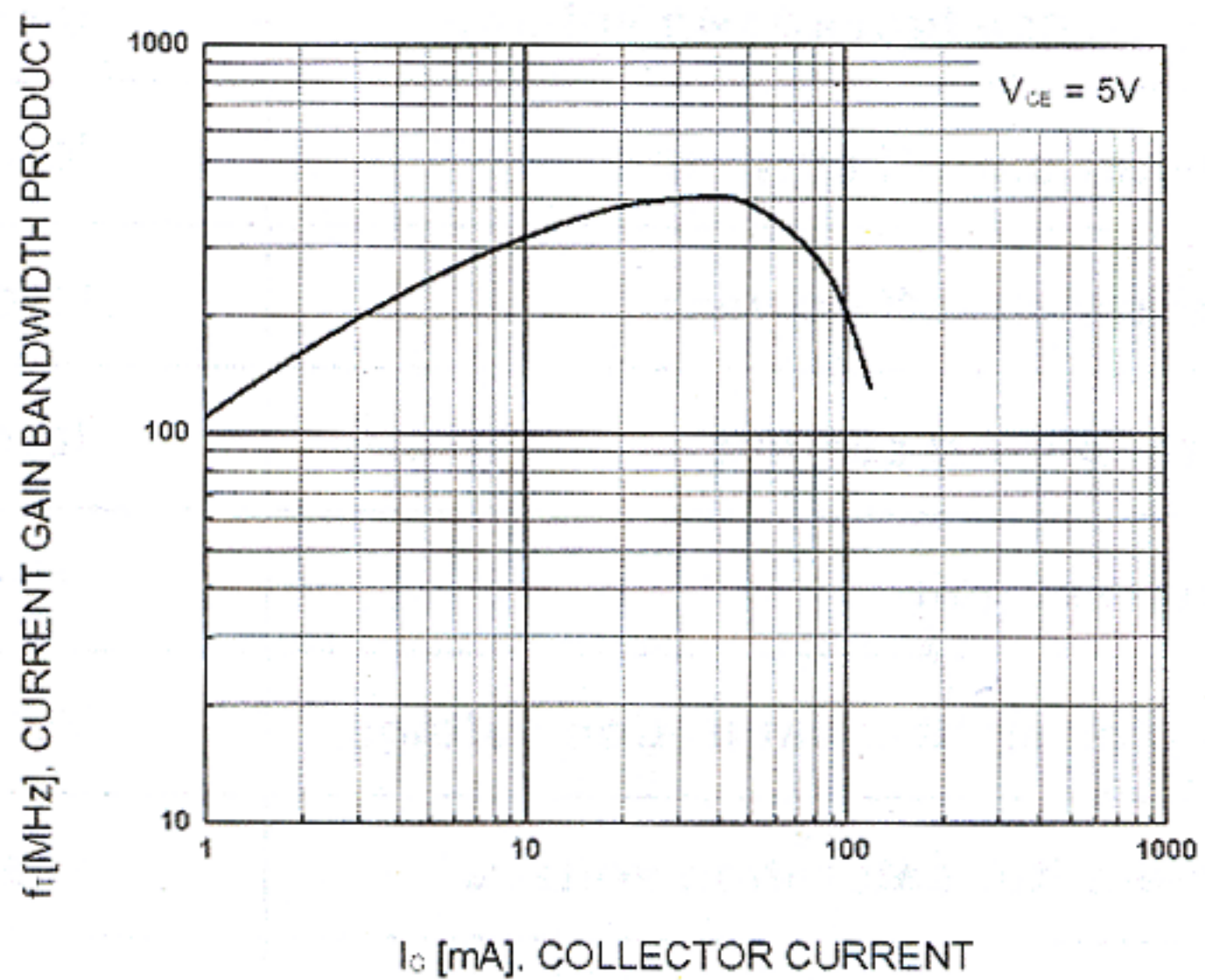
**Static Characteristic**



**DC Current Gain**



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



**Current Gain Bandwidth Product**