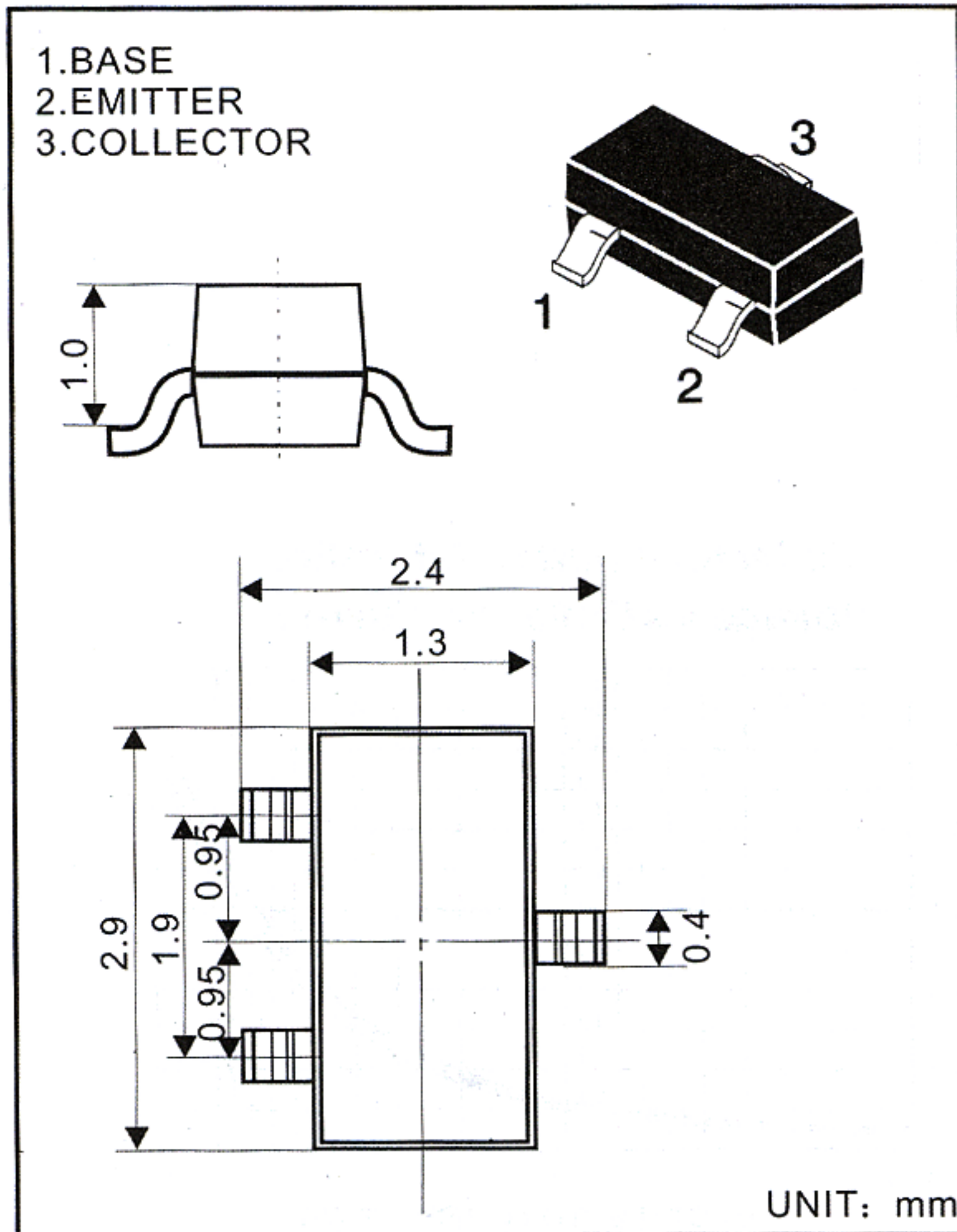


# SOT-23 Plastic-Encapsulate Transistors

## BC817-16/25/40LT1 TRANSISTOR (NPN)



### FEATURES

#### Power dissipation

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

#### Collector current

$I_{CM}$ : 0.5 A

#### Collector-base voltage

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

#### Operating and storage junction temperature range

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

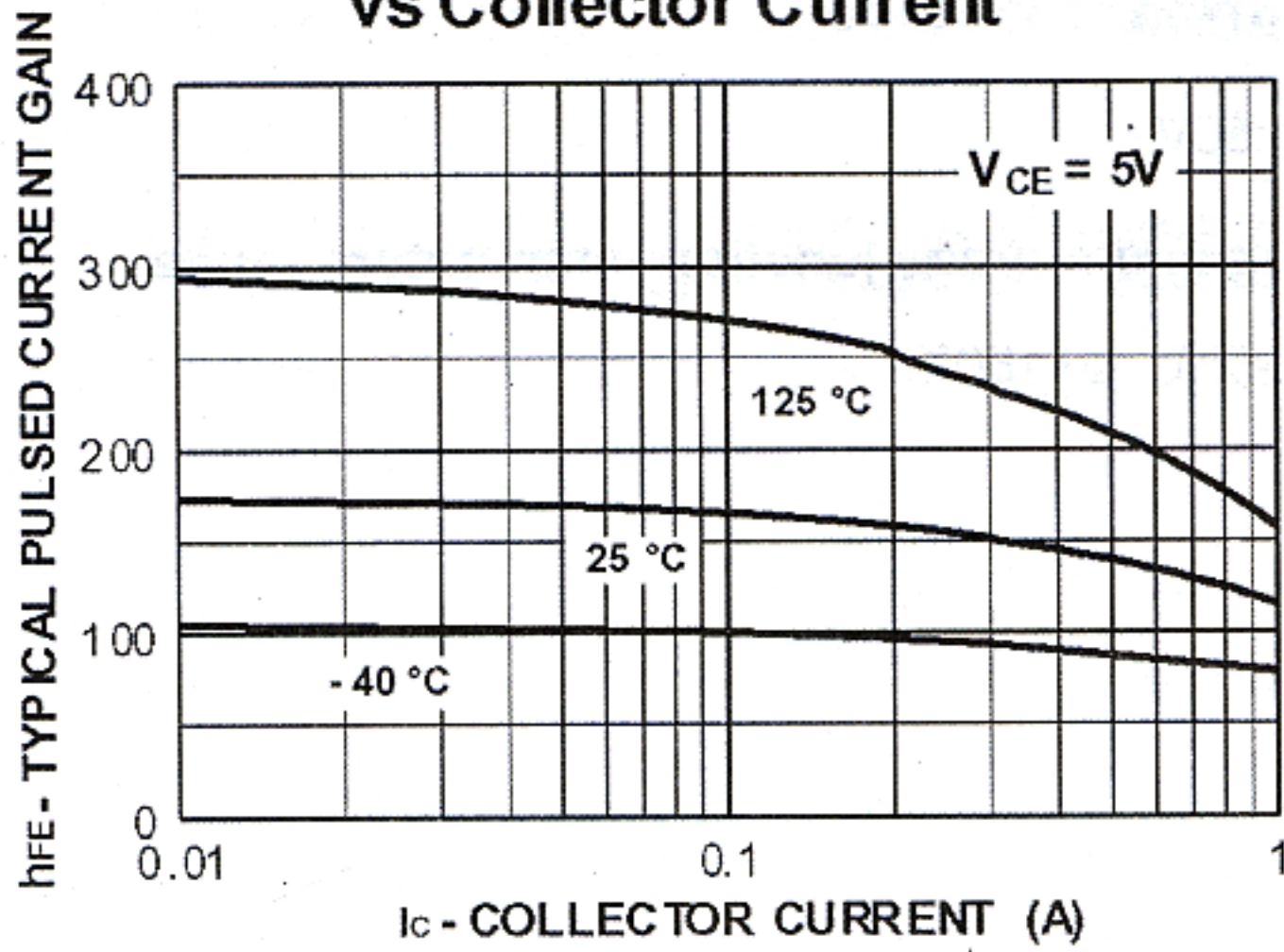
### ELECTRICAL CHARACTERISTICS

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

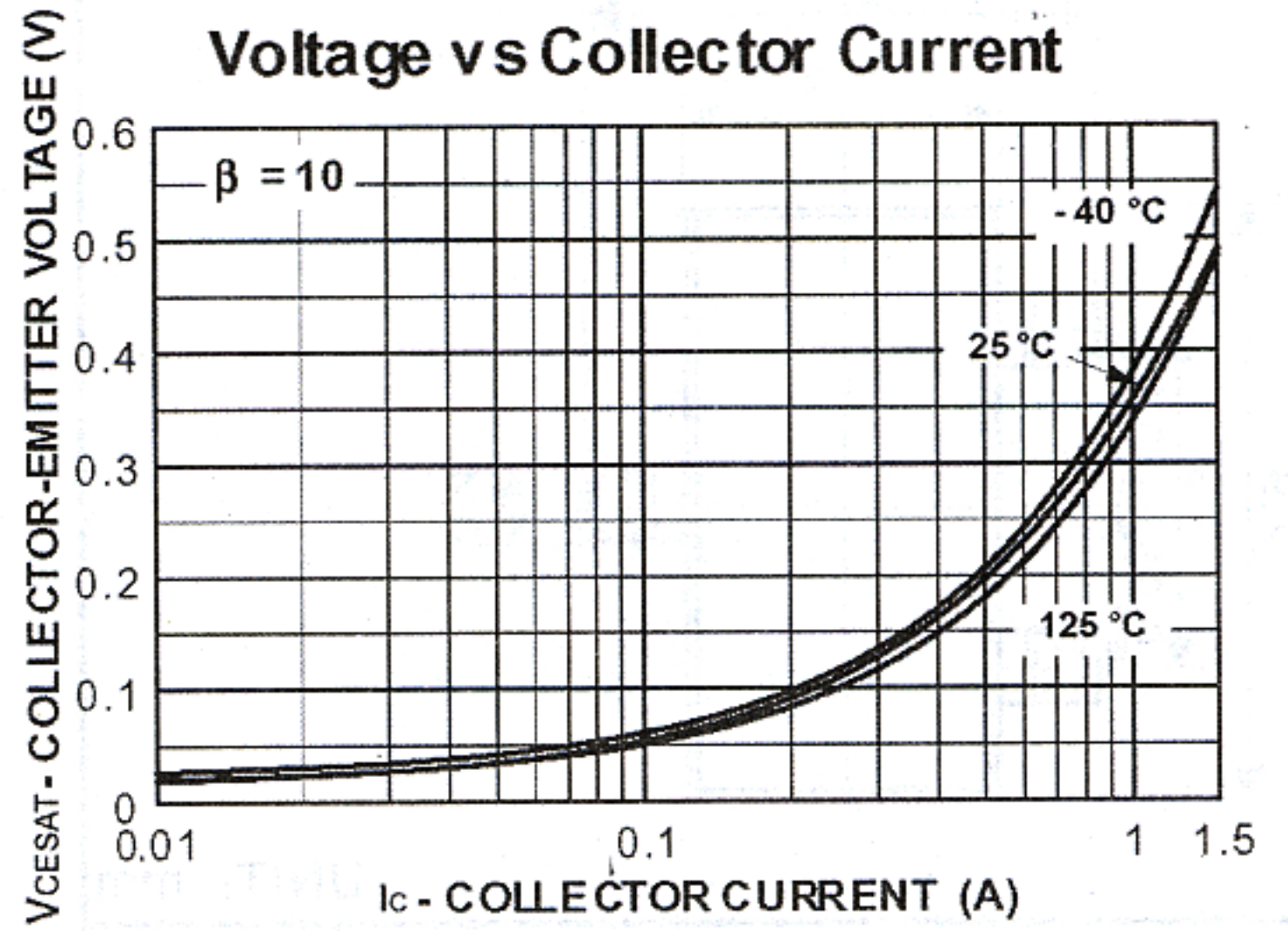
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\mu A, I_B=0$	5		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=45V, I_E=0$		0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=40V, I_B=0$		0.2	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0mA$		0.1	$\mu A$
DC current gain	BC817-16	$V_{CE}=1V, I_C=100mA$	100	250	
	BC817-25		160	400	
	BC817-40		250	600	
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C=500mA, I_B=50mA$		0.7	V
Base-emitter saturation voltage	$V_{BEsat}$	$I_C=500mA, I_B=50mA$		1.2	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA, f=100MHz$	100		MHz

DEVICE MARKING : BC817-16LT1=6A; BC817-25LT1=6B; BC817-40LT1=6C

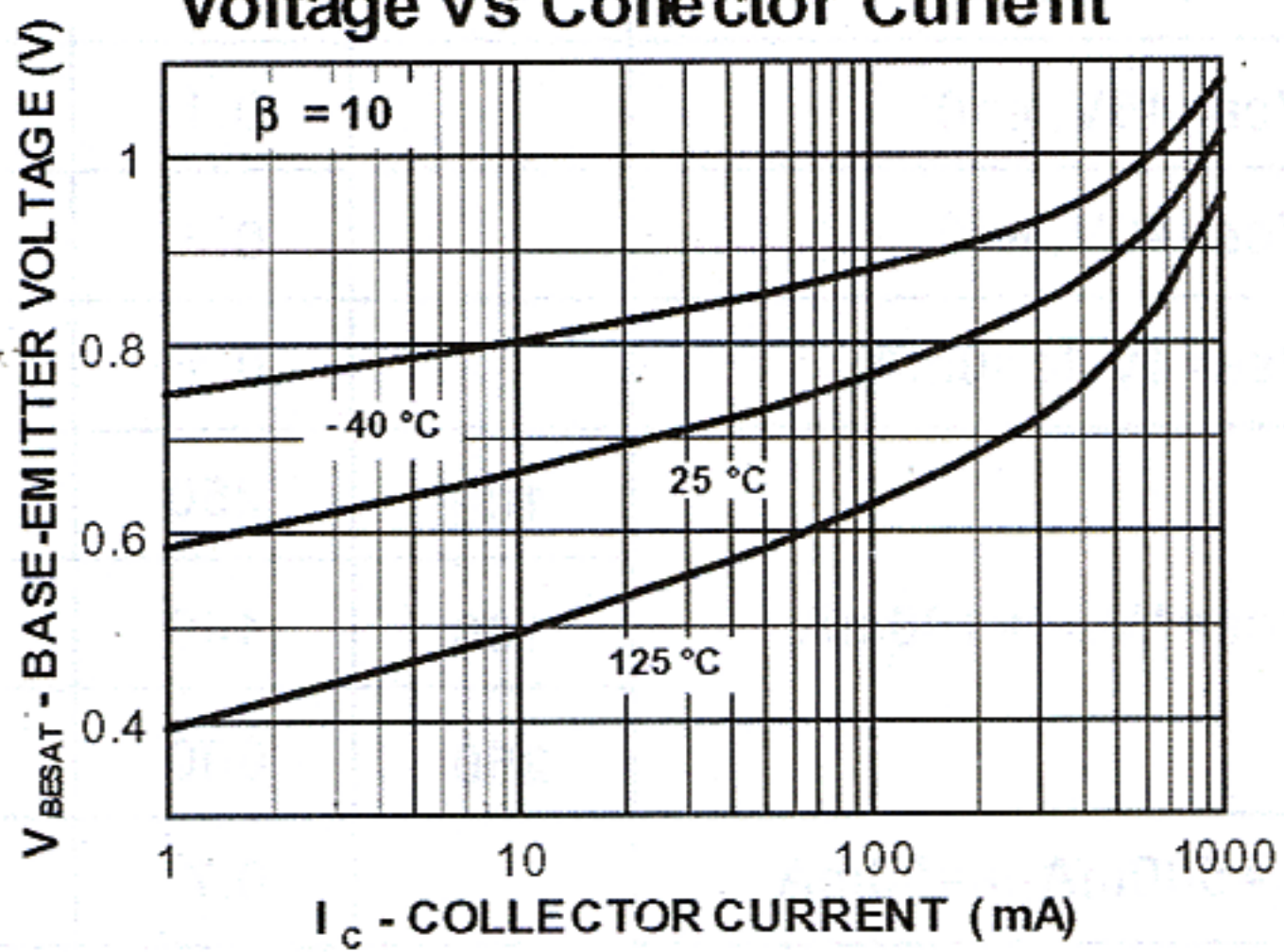
### Typical Pulsed Current Gain vs Collector Current



### Collector-Emitter Saturation Voltage vs Collector Current



### Base-Emitter Saturation Voltage vs Collector Current



### Gain Bandwidth Product vs Collector Current

