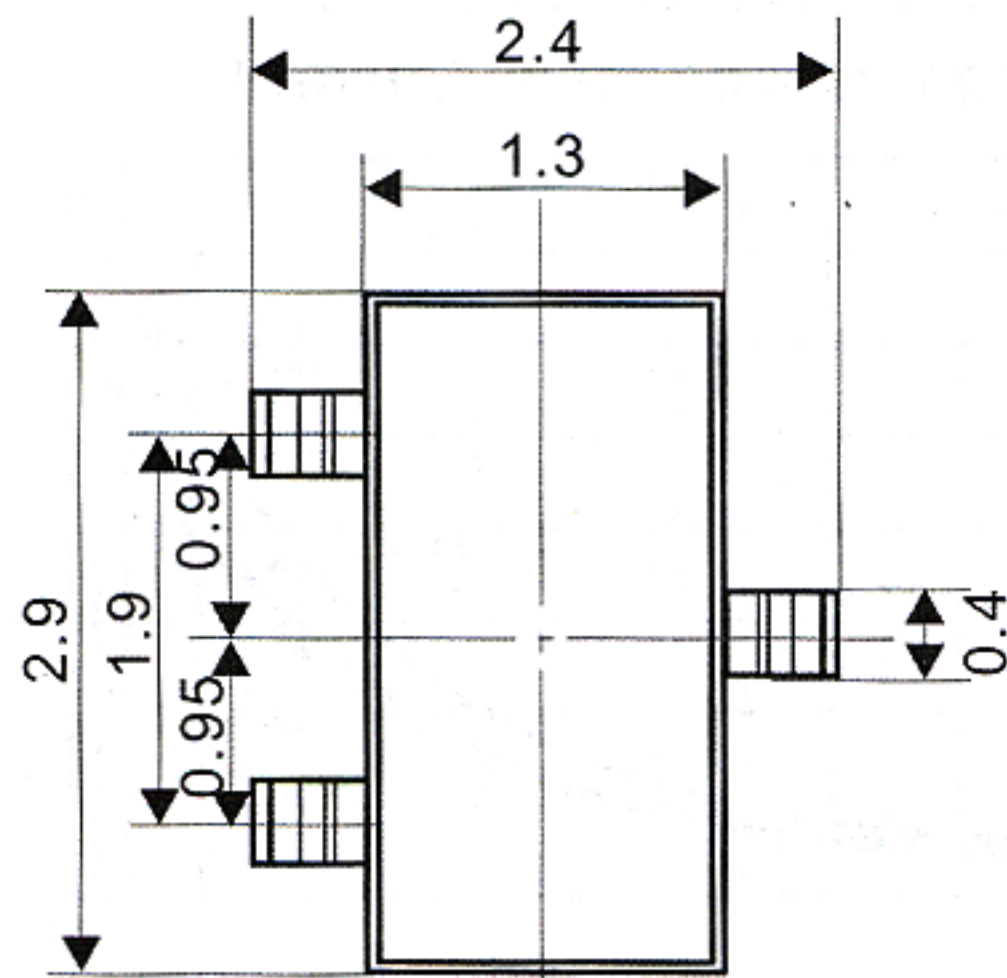
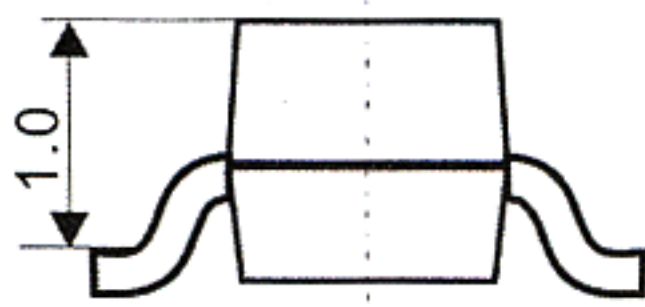
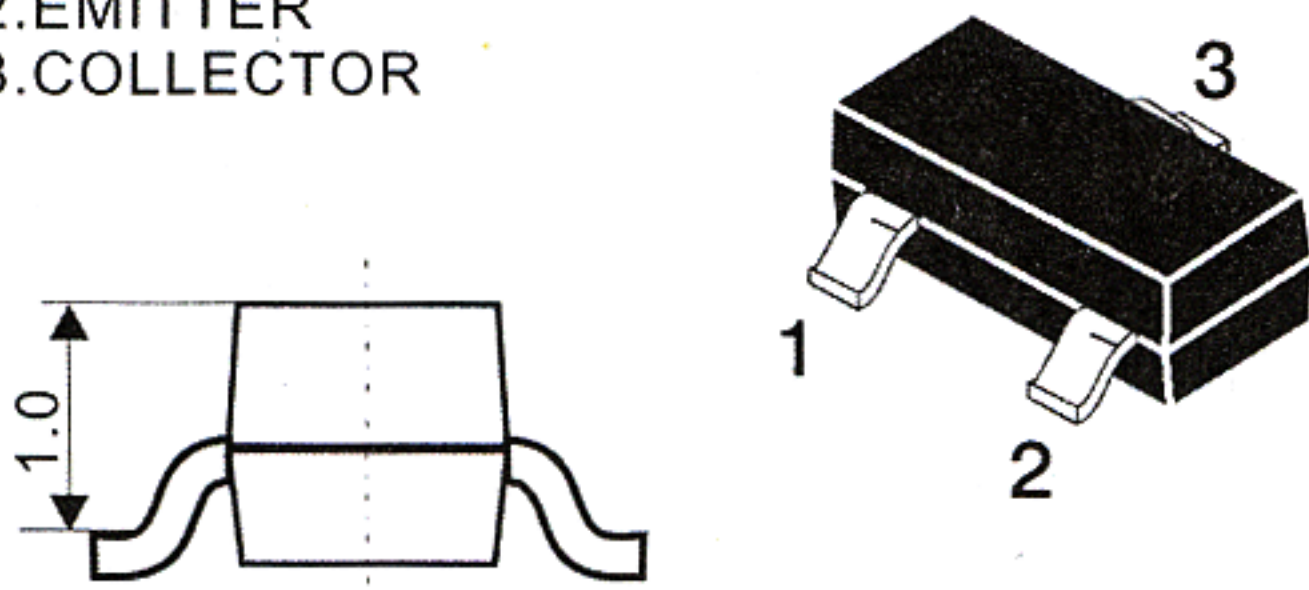


SOT-23 Plastic-Encapsulate Transistors

S8050LT1 TRANSISTOR (NPN)

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



UNIT: mm

FEATURES

Power dissipation

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

Collector current

I_{CM} : 0.5 A

Collector-base voltage

$V_{(BR)CBO}$: 40V

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

CLASSIFICATION OF $h_{FE(1)}$

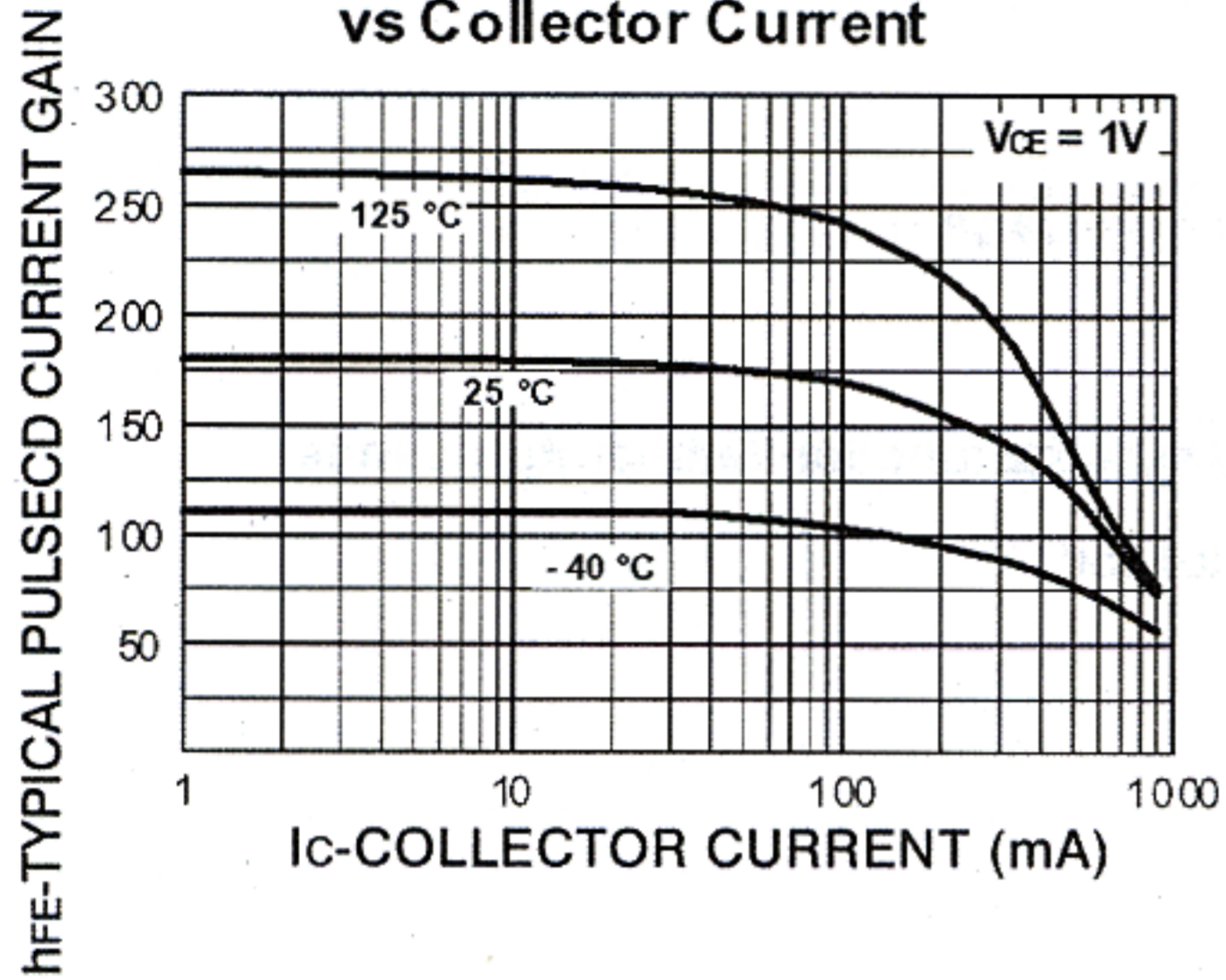
Rank	L	H
Range	200	200-350

DEVICE MARKING : S8050LT1=J3Y

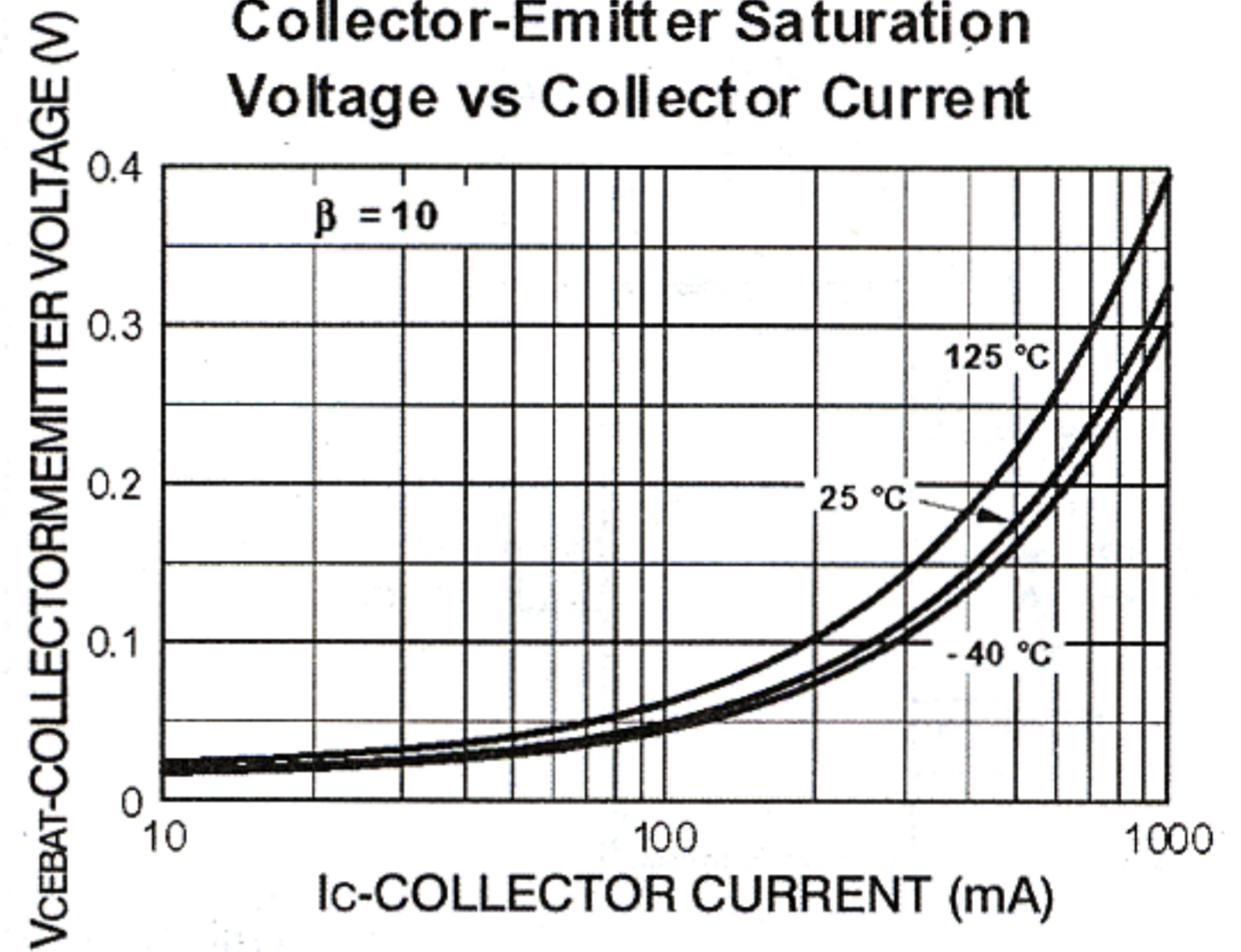
Typical Characteristics

S8050LT1

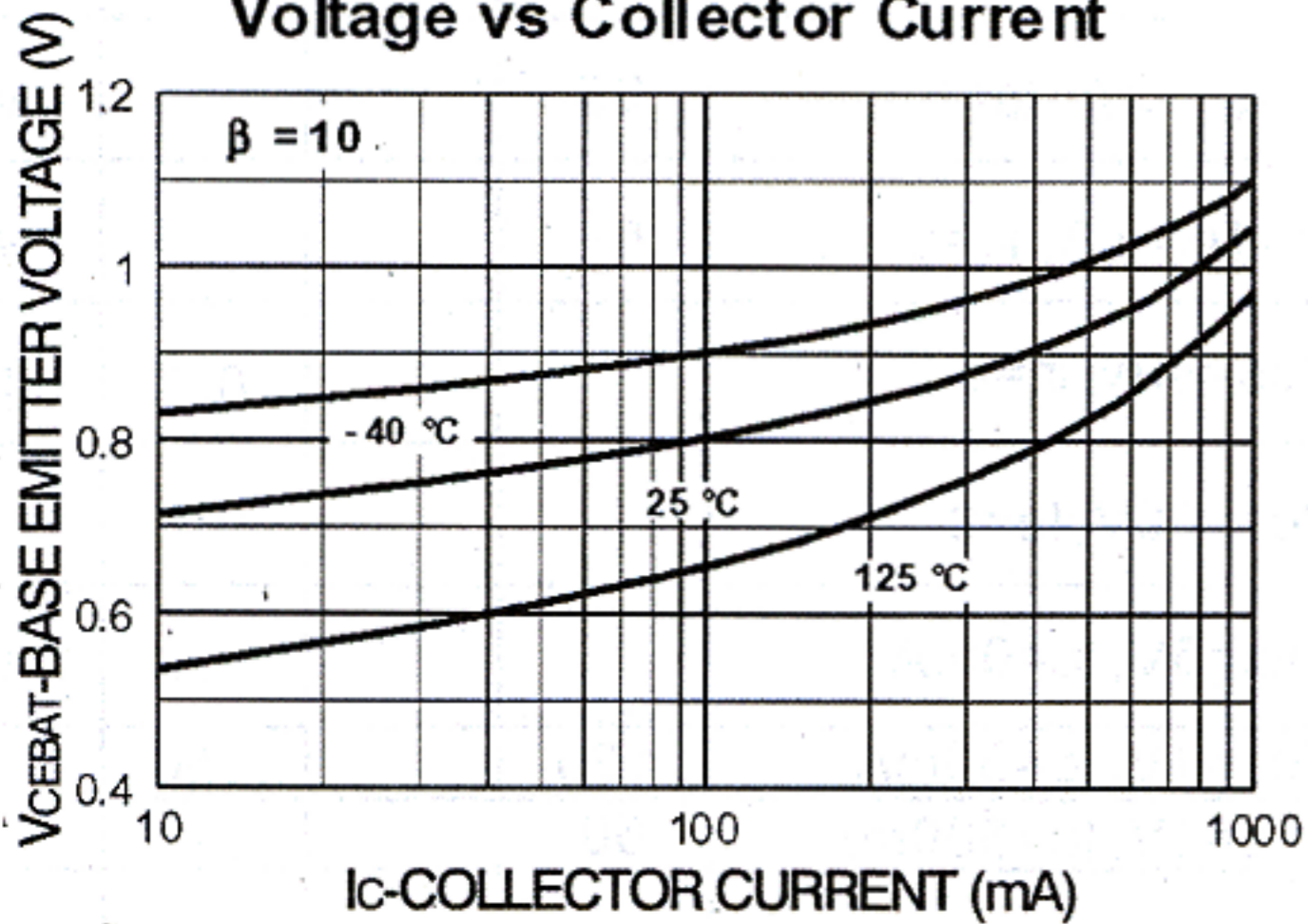
Typical Pulsed Current Gain vs Collector Current



Collector-Emitter Saturation Voltage vs Collector Current



Base-Emitter Saturation Voltage vs Collector Current



Gain Bandwidth Product vs Collector Current

