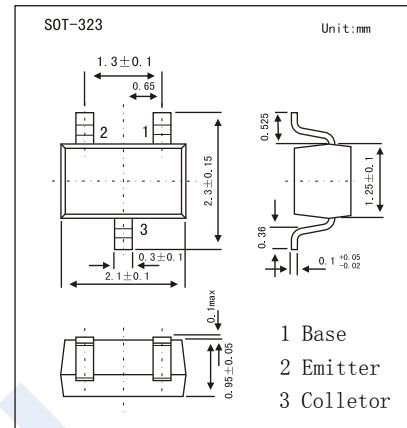


PNP Transistors

2SA1813

■ Features

- High DC current gain ($h_{FE}=500$ to 1200).
- Low collector-to-emitter saturation voltage
- High V_{EBO}



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-30	V
Collector - Emitter Voltage	V_{CEO}	-25	
Emitter - Base Voltage	V_{EBO}	-15	
Collector Current - Continuous	I_C	-150	mA
Collector Current - Pulse	I_{CM}	-300	
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-30			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}$, $R_{BE} = \infty$	-25			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-15			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -20 \text{ V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -10 \text{ V}$, $I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50 \text{ mA}$, $I_B = -1 \text{ mA}$		-0.15	-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50 \text{ mA}$, $I_B = -1 \text{ mA}$		-0.78	-1.1	
DC current gain	h_{FE}	$V_{CE} = -5 \text{ V}$, $I_C = -1 \text{ mA}$	500	800	1200	
Collector output capacitance	C_{ob}	$V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		2.6		pF
Transition frequency	f_T	$V_{CE} = -10 \text{ V}$, $I_C = -10 \text{ mA}$		210		MHz

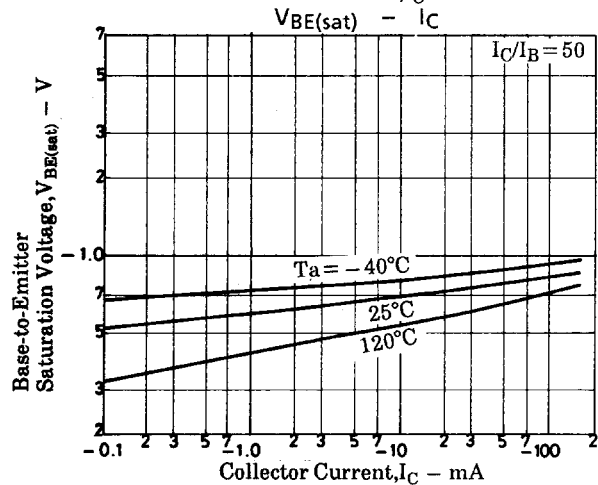
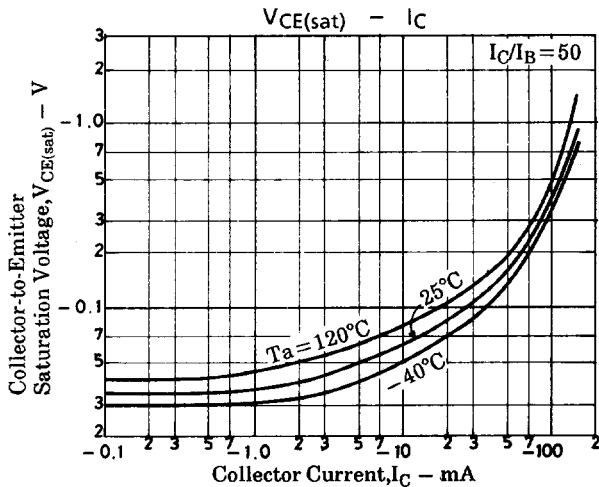
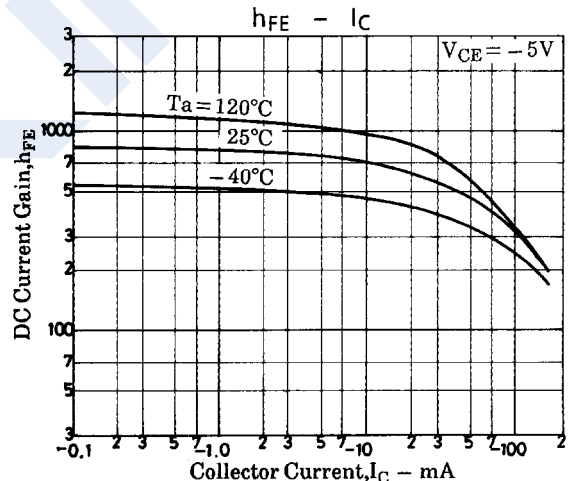
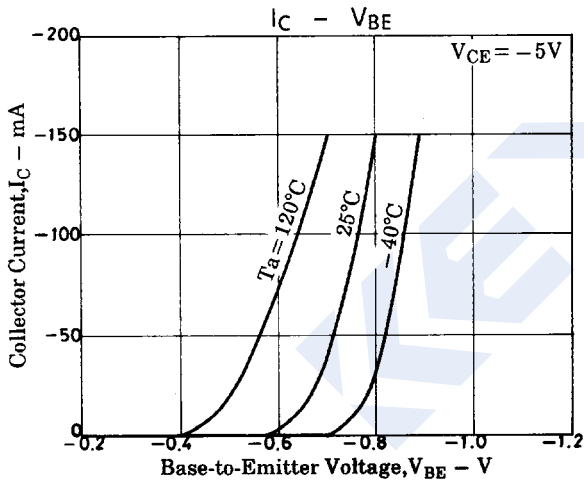
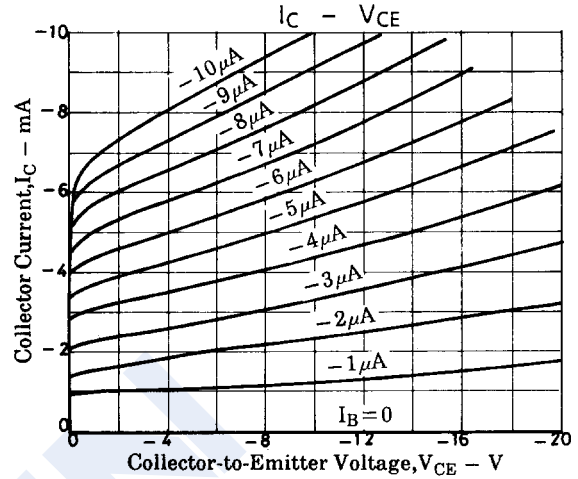
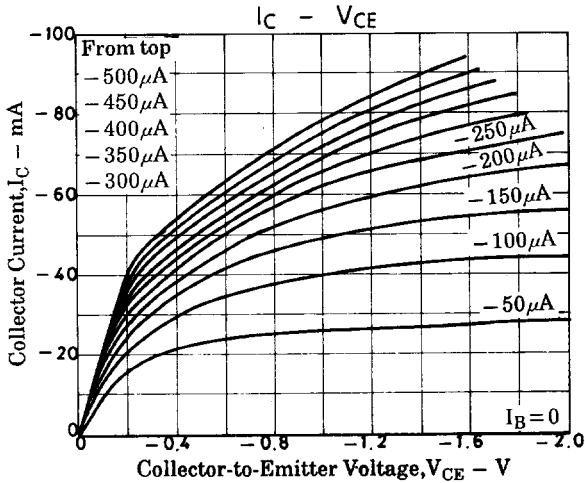
■ Marking

Marking	KS
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PNP Transistors

2SA1813

■ Typical Characteristics



PNP Transistors

2SA1813

■ Typical Characteristics

