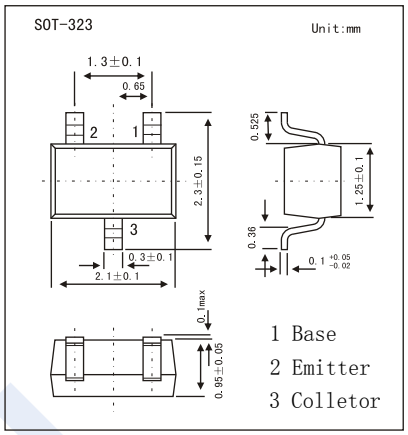
PNP Transistors

2SA1813



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

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

■ Marking

Marking	KS

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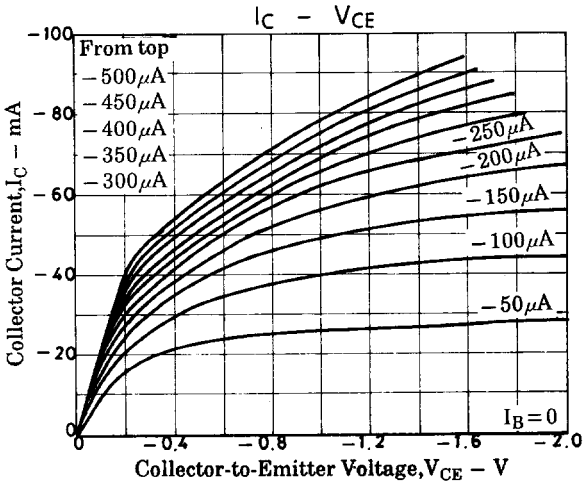
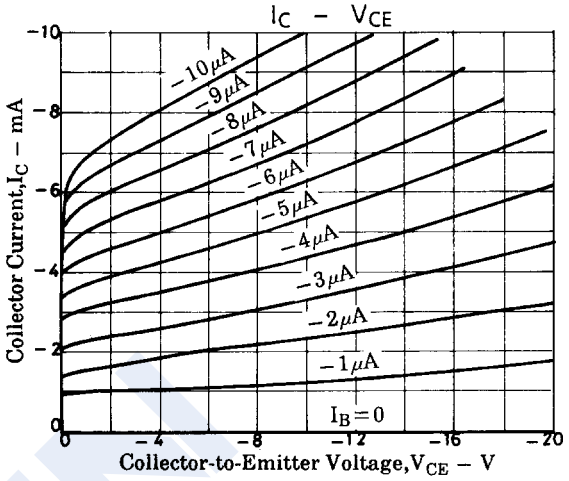
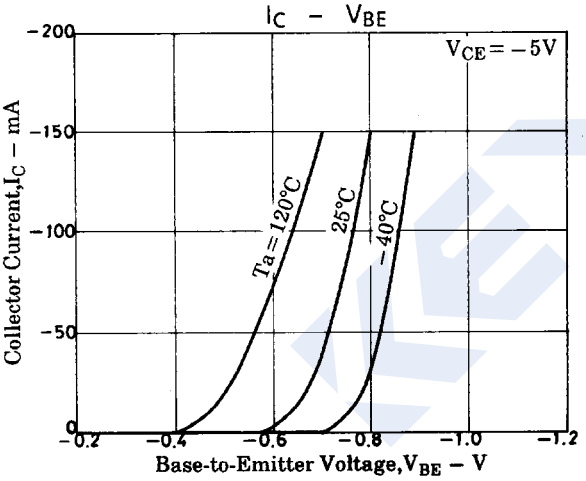
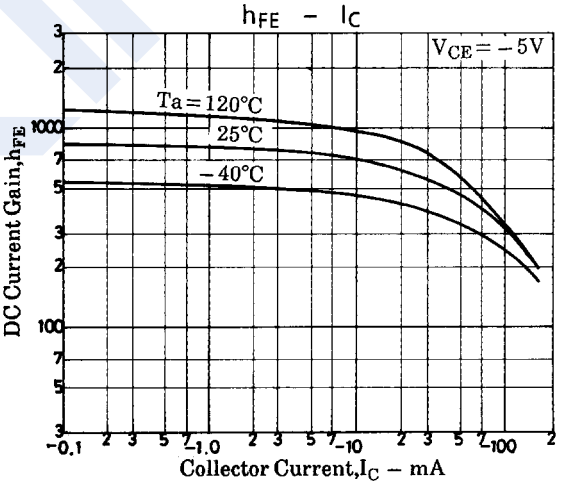
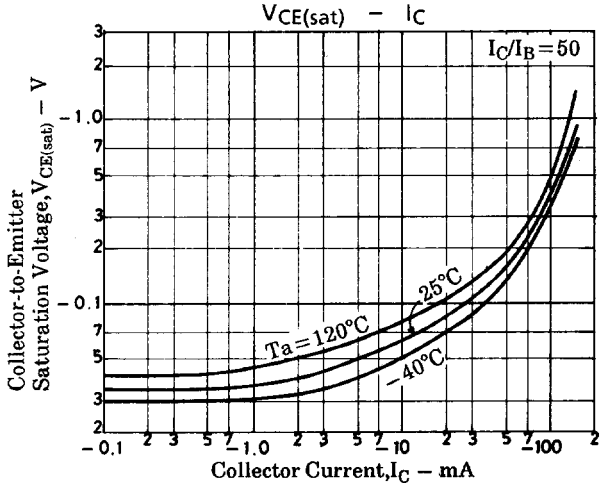
■ Typical Characterisitics

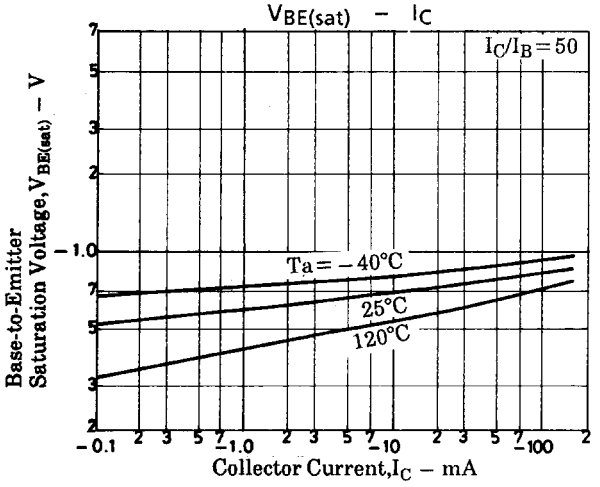












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■ Typical Characterisitics