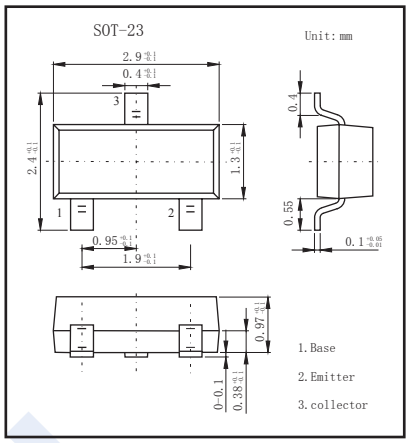
PNP Transistors
2SA812



■ Features

- High DC Current Gain: h_{FE} = 200 TYP. (V_{CE} = -6.0 V, I_C = -1.0 mA)
- High Voltage: V_{CEO} = -50 V

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-60	V
Collector to emitter voltage	V_{CEO}	-50	V
Emitter to base voltage	V_{EBO}	-5.0	V
Collector current (DC)	I_C	-100	mA
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	Testconditi ons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = -60 V, I_E = 0 A			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -5.0 V, I_C = 0 A			-0.1	μA
DC current gain *	h_{FE}	V_{CE} = -6.0 V, I_C = -1.0 mA	90	200	600	
Collector saturation voltage	$V_{CE(sat)}$	I_C = -100 mA, I_B = -10 mA		-0.18	-0.3	V
Base to emitter voltage	V_{BE}	V_{CE} = 6.0 V, I_C = -1.0 mA	-0.58	-0.62	-0.68	V
Output capacitance	C_{ob}	V_{CE} = -10 V, I_E = 0 A, f = 1.0 MHz		4.5		pF
Transition frequency	f_T	V_{CE} = -6.0 V, I_E = 10 mA		180		MHz

* Pulsed: PW ⩽ 350 us, Duty Cycle ⩽ 2%

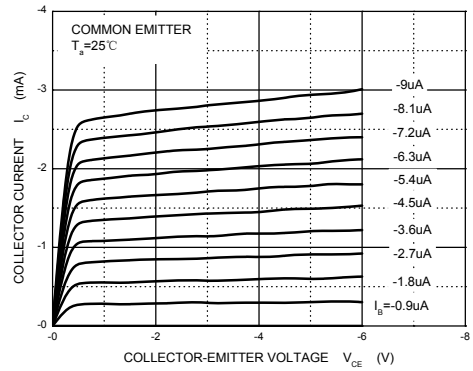
■ h_{FE} Classification

Marking	M4	M5	M6	M7
h_{FE}	90～180	135～270	200～400	300～600

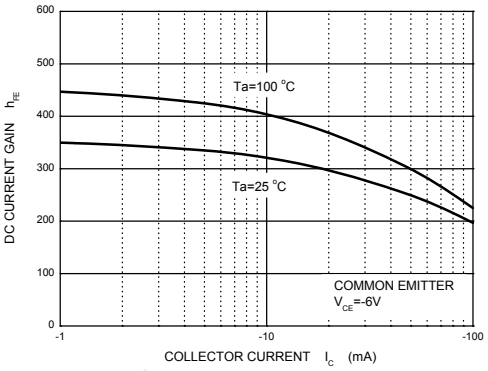
2SA812

■Typical Characteristics

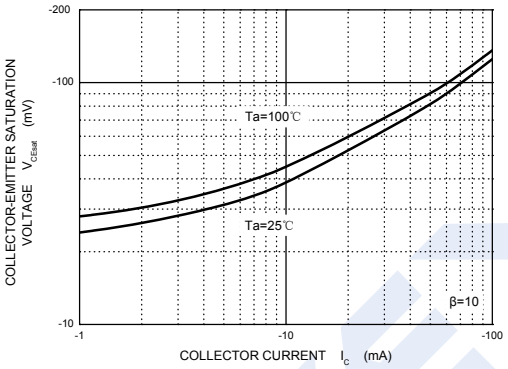
Static Characteristic



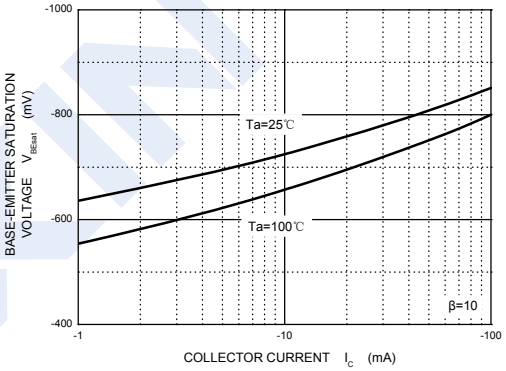
hFE — IC



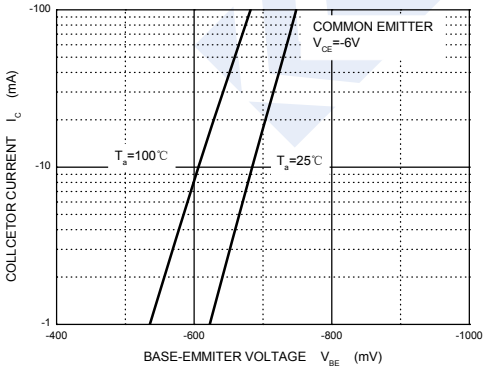
VCEsat — IC



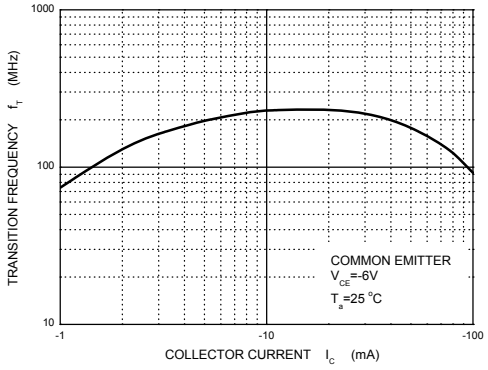
VBEsat — IC



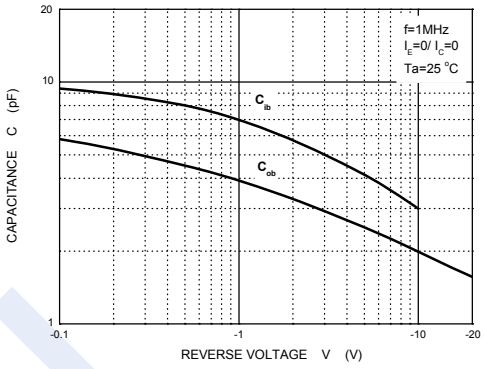
IC — VBE



fT — IC



Cob / Cib — VCB / VEB



Pc — Ta