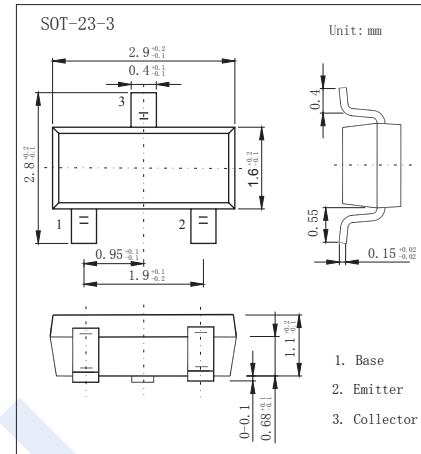


PNP Transistors

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 $T_a = 25^\circ\text{C}$

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	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	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: $PW \leq 350$ μs , Duty Cycle $\leq 2\%$

■ h_{FE} Classification

Type	2SA812-M4	2SA812-M5	2SA812-M6	2SA812-M7
Range	90-180	135-270	200-400	300-600
Marking	M4	M5	M6	M7

2SA812

Typical Characteristics

