

2SB1219, 2SB1219A

Silicon PNP epitaxial planer type

For general amplification

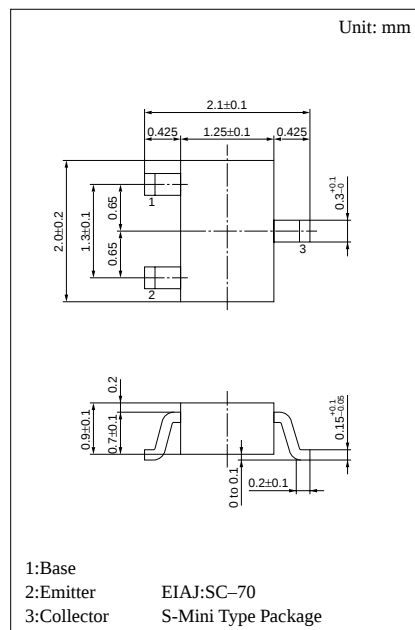
Complementary to 2SD1820 and 2SD1820A

Features

- Large collector current I_C .
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-30	V
2SB1219			
2SB1219A		-60	
Collector to emitter voltage	V_{CEO}	-25	V
2SB1219			
2SB1219A		-50	
Emitter to base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-1	A
Collector current	I_C	-0.5	A
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$



Marking symbol : C(2SB1219)
D(2SB1219A)

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

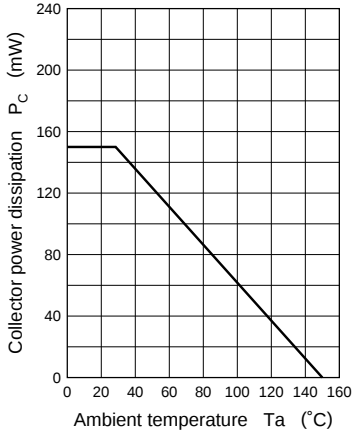
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	μA
Collector to base voltage	V_{CBO}	$I_C = -10\mu\text{A}, I_E = 0$	-30			V
			-60			
Collector to emitter voltage	V_{CEO}	$I_C = -2\text{mA}, I_B = 0$	-25			V
			-50			
Emitter to base voltage	V_{EBO}	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio	h_{FE1}^{*1}	$V_{CE} = -10\text{V}, I_C = -150\text{mA}^{*2}$	85		340	
	h_{FE2}	$V_{CE} = -10\text{V}, I_C = -500\text{mA}^{*2}$	40			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -300\text{mA}, I_B = -30\text{mA}^{*2}$		-0.35	-0.6	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = -300\text{mA}, I_B = -30\text{mA}^{*2}$		-1.1	-1.5	V
Transition frequency	f_T	$V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		6	15	pF

$^{*1}h_{FE1}$ Rank classification

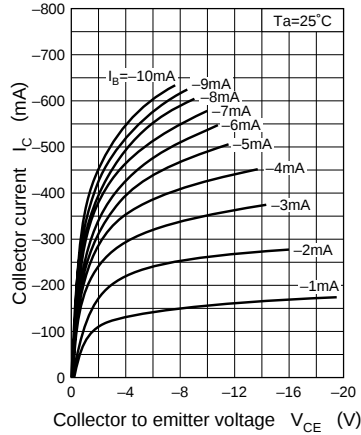
Rank		Q	R	S
h _{FE1}		85 ~ 170	120 ~ 240	170 ~ 340
Marking Symbol	2SB1219	CQ	CR	CS
	2SB1219A	DQ	DR	DS

*2 Pulse measurement

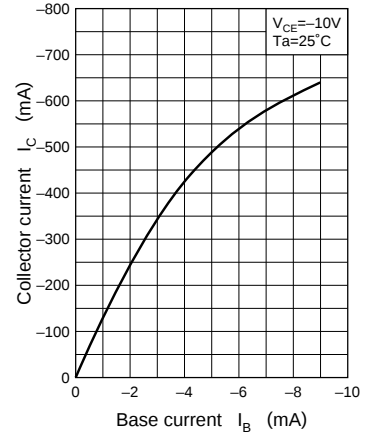
$P_C - T_a$



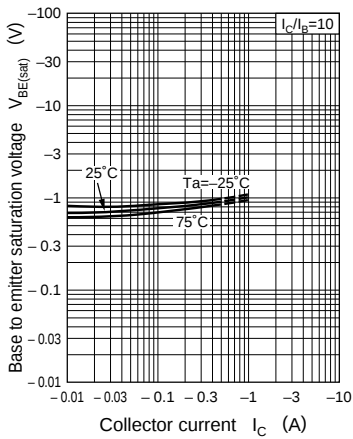
$I_C - V_{CE}$



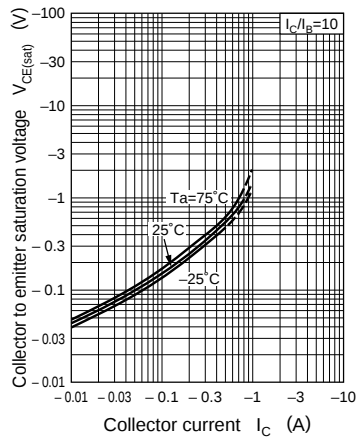
$I_C - I_B$



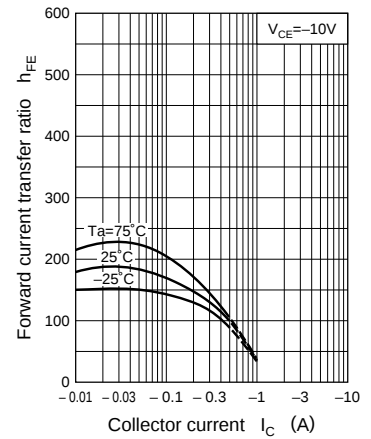
$V_{BE(\text{sat})} - I_C$



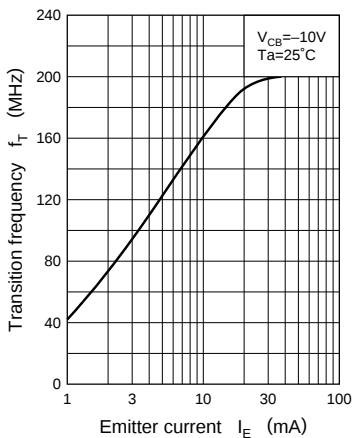
$V_{CE(\text{sat})} - I_C$



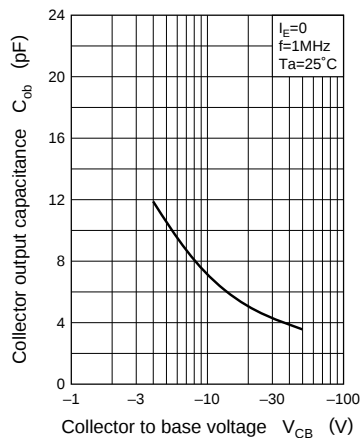
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



$V_{CER} - R_{BE}$

