

# 2SB1679

## Silicon PNP epitaxial planer type

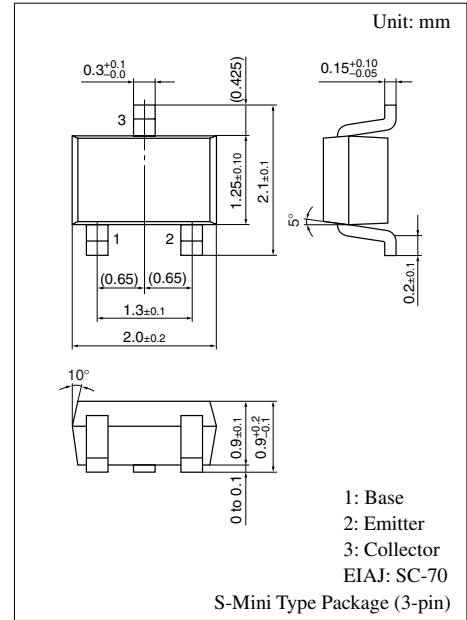
For low-frequency amplification

### ■ Features

- Large current capacitance
- Low collector to emitter saturation voltage
- Small type package, allowing downsizing and thinning of the equipment.

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-15	V
Collector to emitter voltage	$V_{CEO}$	-10	V
Emitter to base voltage	$V_{EBO}$	-7	V
Peak collector current	$I_{CP}$	-0.5	A
Collector current	$I_C$	-1	A
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$



Marking Symbol: 3V

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -10\text{ V}, I_E = 0$			-100	nA
Collector to base voltage	$V_{CBO}$	$I_C = -10\ \mu\text{A}, I_E = 0$	-15			V
Collector to emitter voltage	$V_{CEO}$	$I_C = -1\ \text{mA}, I_B = 0$	-10			V
Emitter to base voltage	$V_{EBO}$	$I_E = -10\ \mu\text{A}, I_C = 0$	-7			V
Forward current transfer ratio *1	$h_{FE1}$ *2	$V_{CE} = -2\ \text{V}, I_C = -0.5\ \text{A}$	130		350	
	$h_{FE2}$	$V_{CE} = -2\ \text{V}, I_C = -1\ \text{A}$	60			
Collector to emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -0.4\ \text{A}, I_B = -8\ \text{mA}$		-0.16	-0.3	V
Base to emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -0.4\ \text{A}, I_B = -8\ \text{mA}$		-0.8	-1.2	V
Transition frequency	$f_T$	$V_{CB} = -10\ \text{V}, I_E = 50\ \text{mA}, f = 200\ \text{MHz}$		130		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		22		pF

Note) \*1: Pulse measurement

\*2: Rank classification

Rank	R	S
$h_{FE1}$	130 to 220	180 to 350