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# 2SB1679

## Silicon PNP epitaxial planar type

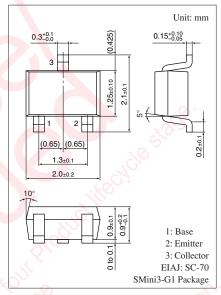
### For low-frequency amplification

#### ■ Features

- $\bullet$  Large collector output capacitance (Common base, input open circuited)  $C_{ob}$
- ullet Low collector-emitter saturation voltage  $V_{\text{CE(sat)}}$
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	$V_{CBO}$	-15	V	
Collector-emitter voltage (Base open)	$V_{CEO}$	-10	V	
Emitter-base voltage (Collector open)	$V_{EBO}$	-7	V	
Collector current	$I_{C}$	- 0.5	A	
Peak collector current	$I_{CP}$	-1	A	
Collector power dissipation	P <sub>C</sub>	150	mW	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	



Marking Symbol: 3V

### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_C = -10 \mu\text{A}, I_E = 0$	-15	5		V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-10	,0		V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = -10 \mu\text{A},  I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -10 \text{ V}, I_E = 0$			-100	nA
Forward current transfer ratio *1	h <sub>FE1</sub> *2	$V_{CE} = -2 \text{ V}, I_{C} = -0.5 \text{ A}$	130		350	_
	h <sub>FE2</sub>	$V_{CE} = -2 \text{ V}, I_{C} = -1 \text{ A}$	60			
Collector-emitter saturation voltage *1	V <sub>CE(sat)</sub>	$I_C = -0.4 \text{ A}, I_B = -8 \text{ mA}$		- 0.16	- 0.30	V
Base-emitter saturation voltage *1	V <sub>BE(sat)</sub>	$I_C = -0.4 \text{ A}, I_B = -8 \text{ mA}$		- 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 <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		22		pF
(Common base, input open circuited)		<b>/</b>				

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

#### 2. \*1: Pulse measurement

#### \*2: Rank classification

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

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