# 2SB1011

# Silicon PNP triple diffusion planar type

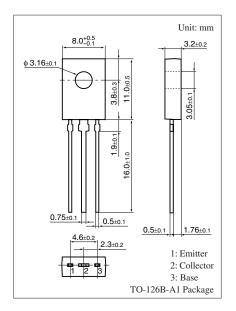
### For low-frequency output amplification

#### ■ Features

- High collector-base voltage (Emitter open) V<sub>CBO</sub>
- ullet High collector-emitter voltage (Base open)  $V_{CEO}$
- Large collector power dissipation P<sub>C</sub>
- Low collector-emitter saturation voltage V<sub>CE(sat)</sub>

## ■ Absolute Maximum Ratings $T_a = 25$ °C

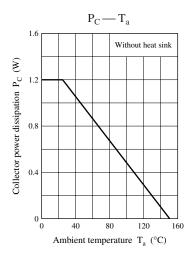
Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	V <sub>CBO</sub> -400		
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-400	V	
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V	
Collector current	$I_C$	-100	mA	
Peak collector current	$I_{CP}$	-200	mA	
Collector power dissipation	P <sub>C</sub>	1.2	W	
Junction temperature	$T_j$	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	°C	

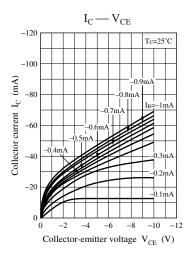


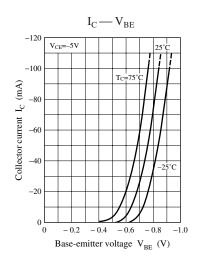
### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

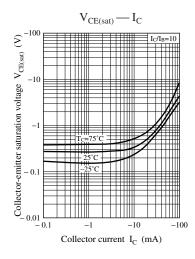
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emiter open)	V <sub>CBO</sub>	$I_C = -100 \mu\text{A},  I_E = 0$	-400			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_C = -500 \mu\text{A},  I_B = 0$	-400			V
Emiter-base voltage (Collector open)	$V_{EBO}$	$I_E = -100 \ \mu A, \ I_C = 0$	-5			V
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -30 \text{ mA}$	30			_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$			-2.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	$I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$			-1.5	V
Transition frequency	$f_T$	$V_{CB} = -30 \text{ V}, I_E = 20 \text{ mA}, f = 200 \text{ MHz}$		70		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -30 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			9	pF
(Common base, input open circuited)						

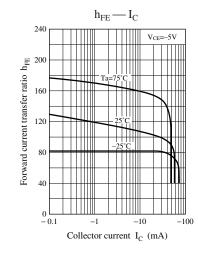
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

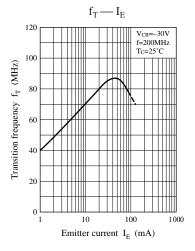


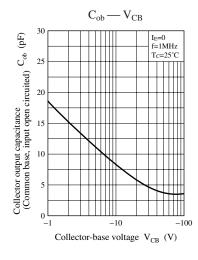


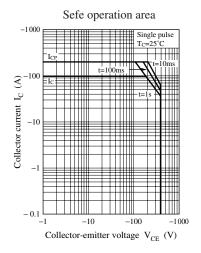


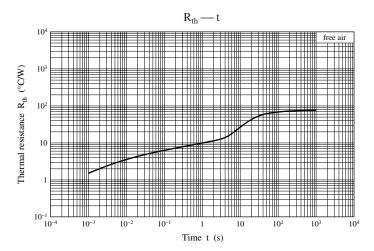












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