## 2SB1054

## Silicon PNP triple diffusion planar type

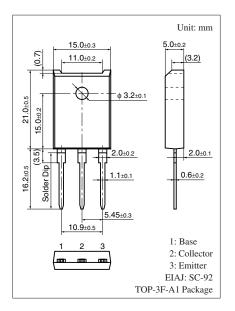
For high power amplification Complementary to 2SD1485

#### ■ Features

- $\bullet$  Excellent collector current  $I_C$  characteristics of forward current transfer ratio  $h_{FE}$
- Wide safe operation area
- High transition frequency f<sub>T</sub>
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-100	V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-100	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V
Collector current	$I_C$	-5	A
Peak collector current	$I_{CP}$	-8	A
Collector power dissipation	P <sub>C</sub>	60	W
$T_a = 25^{\circ}C$		3	
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C



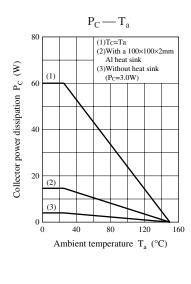
#### ■ Electrical Characteristics $T_C = 25$ ° $C \pm 3$ °C

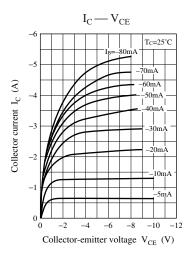
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Base-emitter voltage	V <sub>BE</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -3 \text{ A}$			-1.8	V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -100 \text{ V}, I_E = 0$			-50	μΑ
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -3 \text{ V}, I_{C} = 0$			-50	μΑ
Forward current transfer ratio	h <sub>FE1</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -20 \text{ mA}$	20			_
	h <sub>FE2</sub> *	$V_{CE} = -5 \text{ V}, I_{C} = -1 \text{ A}$	40		200	
	h <sub>FE3</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -3 \text{ A}$	20			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = -3 \text{ A}, I_B = -0.3 \text{ A}$			-2.0	V
Transition frequency	$f_T$	$V_{CE} = -5 \text{ V}, I_{C} = -0.5 \text{ A}, f = 1 \text{ MHz}$		20		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		170		pF
(Common base, input open circuited)						

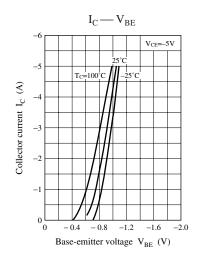
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

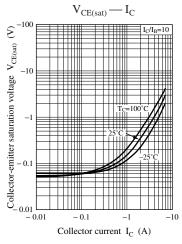
#### 2. \*: Rank classification

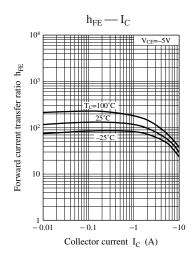
Rank	R	Q	Р
h <sub>FE2</sub>	40 to 80	60 to 120	100 to 200



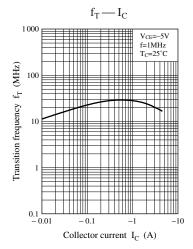


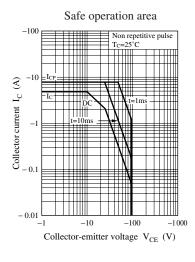


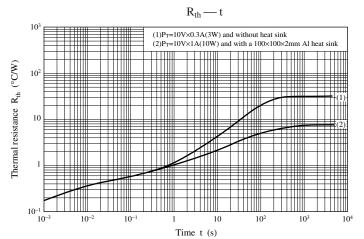




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