## 2SC2258

### Silicon NPN triple diffusion planar type

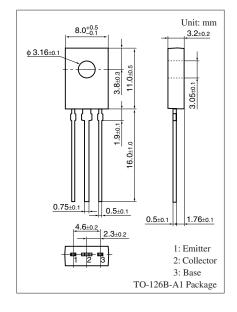
For high breakdown voltage general amplification

#### ■ Features

- High collector-emitter voltage (Base open) V<sub>CEO</sub>
- High transition frequency f<sub>T</sub>
- TO-126B package which requires no insulation plate for installation to the heat sink

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	250	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	250	V	
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V	
Collector current	$I_C$	100	mA	
Peak collector current	$I_{CP}$	150	mA	
Collector power dissipation	P <sub>C</sub>	1.2 *1	W	
		4 *2		
Junction temperature	$T_{j}$	150	°C	
Storage temperature	$T_{stg}$	-55 to +150	°C	



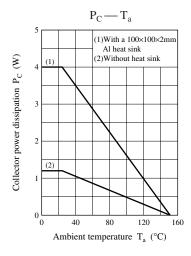
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

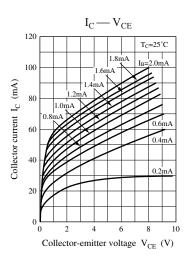
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = 0.1 \text{ mA}, I_C = 0$	7			V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 20 \text{ V}, I_{C} = 40 \text{ mA}$			1.2	V
Collector-emitter cutoff current (Resistor between B and E)	I <sub>CER</sub>	$V_{CE} = 250 \text{ V}, R_{BE} = 100 \text{ k}\Omega$			100	μА
Forward current transfer ratio	h <sub>FE1</sub>	$V_{CE} = 20 \text{ V}, I_{C} = 40 \text{ mA}$	40			_
	h <sub>FE2</sub>	$V_{CE} = 50 \text{ V}, I_{C} = 5 \text{ mA}$	30			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$			1.2	V
Transition frequency	$f_T$	$V_{CB} = 10 \text{ V}, I_{E} = -10 \text{ mA}, f = 200 \text{ MHz}$		100		MHz
Collector output capacitance (Common base, input open circuited)	C <sub>ob</sub>	$V_{CB} = 50 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.0	4.5	pF

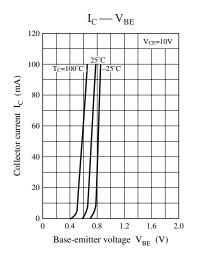
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

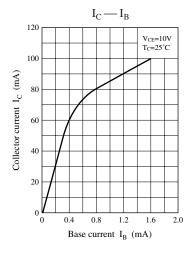
Note) \*1: Without heat sink

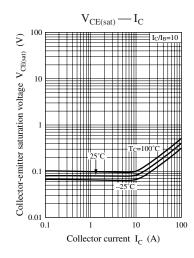
<sup>\*2 :</sup>With a  $100 \times 100 \times 2$  mm Al heat sink

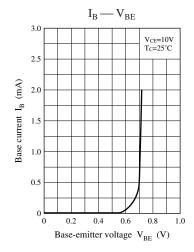


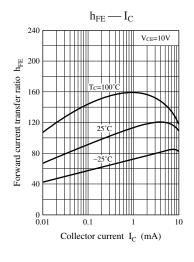


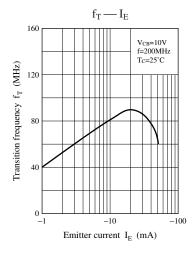


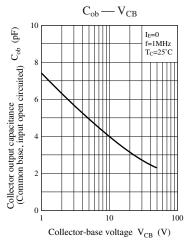












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