

# 2SC2258

## Silicon NPN triple diffusion planar type

For high breakdown voltage general amplification

### ■ Features

- High collector-emitter voltage (Base open)  $V_{CEO}$
- High transition frequency  $f_T$
- TO-126B package which requires no insulation plate for installation to the heat sink

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	250	V
Collector-emitter voltage (Base open)	$V_{CEO}$	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	$P_C$	1.2 *1 4 *2	W
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

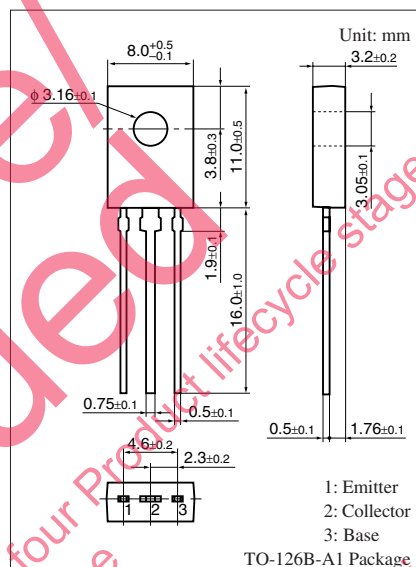
Note) \*1: Without heat sink

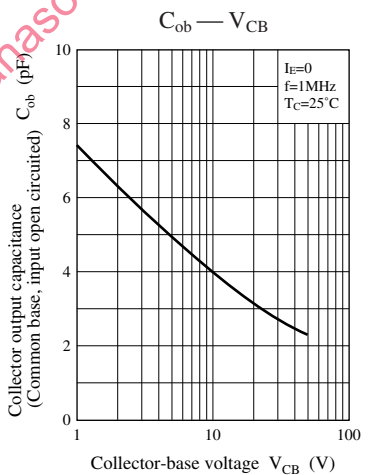
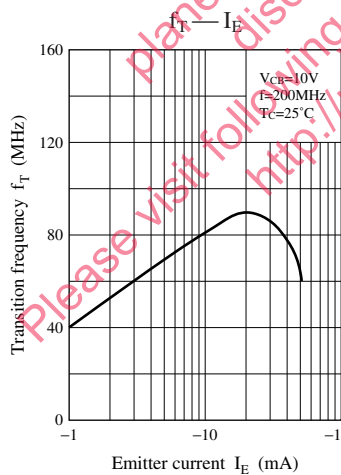
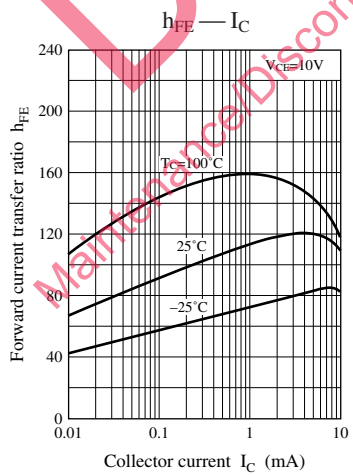
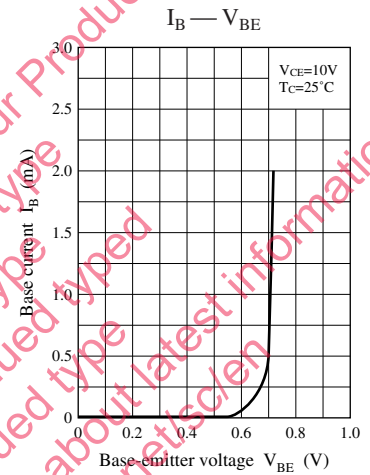
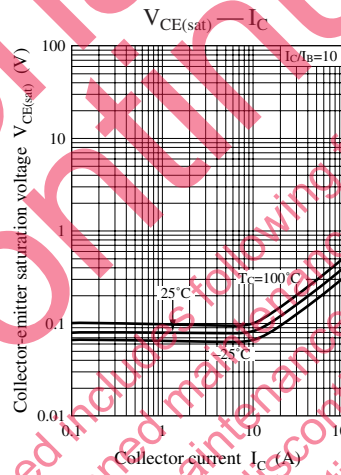
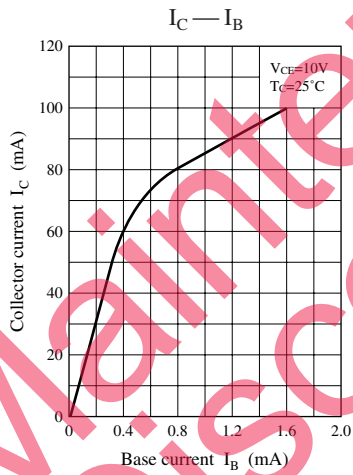
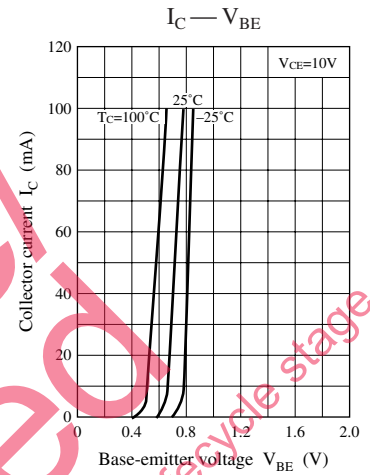
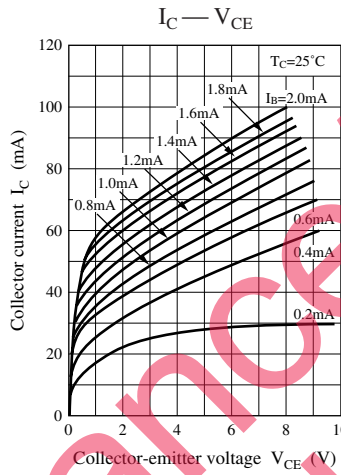
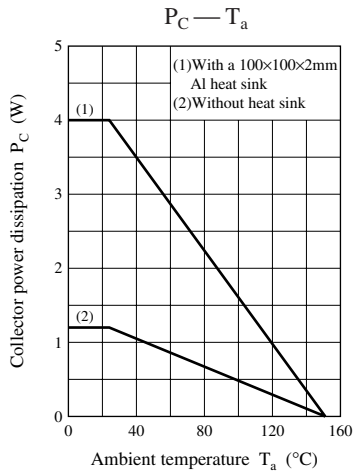
\*2: With a 100 × 100 × 2 mm Al heat sink

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

Parameter	Symbol	Conditions	Min	Typ	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)	$I_{CER}$	$V_{CE} = 250 \text{ V}, R_{BE} = 100 \text{ k}\Omega$			100	$\mu\text{A}$
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 20 \text{ V}, I_C = 40 \text{ mA}$	40			—
	$h_{FE2}$	$V_{CE} = 50 \text{ V}, I_C = 5 \text{ mA}$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}, I_B = 5 \text{ mA}$			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)	$C_{ob}$	$V_{CB} = 50 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.0	4.5	pF

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





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