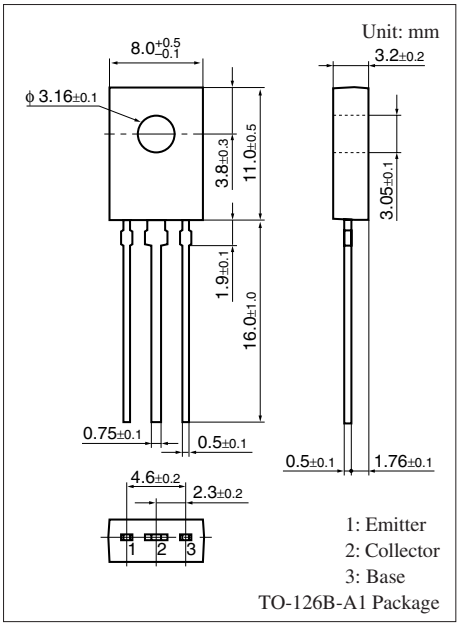
2SC2258

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 $T_a = 25°C$

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	W
		4 *2	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

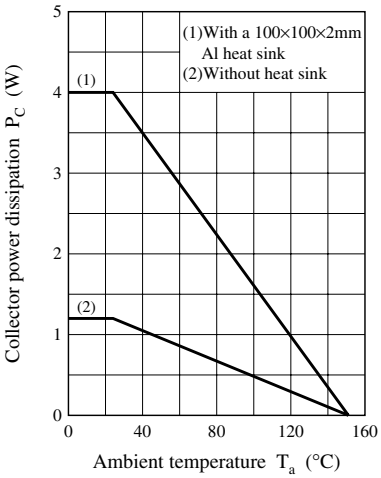
Note) ∗1: Without heat sink
∗2 :With a 100 × 100 × 2 mm Al heat sink

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

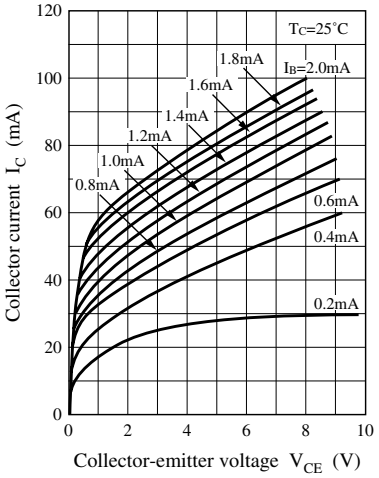
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 0.1 mA, I_C = 0	7			V
Base-emitter voltage	V_{BE}	V_{CE} = 20 V, I_C = 40 mA			1.2	V
Collector-emitter cutoff current (Resistor between B and E)	I_{CER}	V_{CE} = 250 V, R_{BE} = 100 kΩ			100	µA
Forward current transfer ratio	h_{FE1}	V_{CE} = 20 V, I_C = 40 mA	40			—
	h_{FE2}	V_{CE} = 50 V, I_C = 5 mA	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 50 mA, I_B = 5 mA			1.2	V
Transition frequency	f_T	V_{CB} = 10 V, I_E = −10 mA, f = 200 MHz		100		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	V_{CB} = 50 V, I_E = 0, f = 1 MHz		3.0	4.5	pF

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

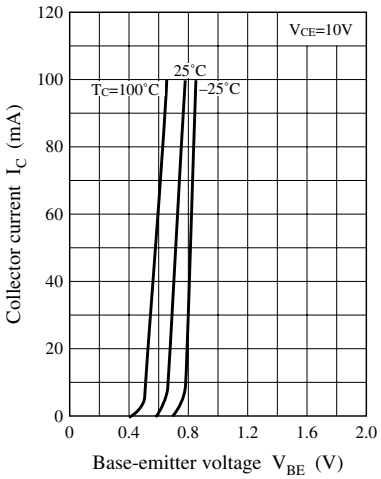
P_C — T_a



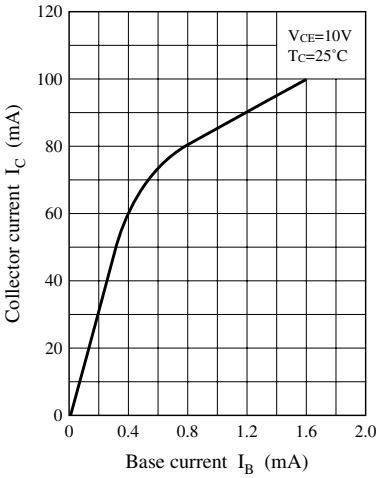
I_C — V_{CE}



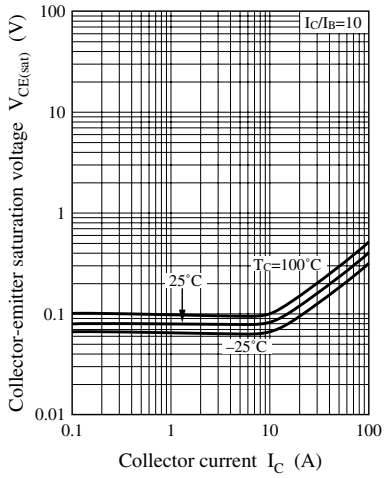
I_C — V_{BE}



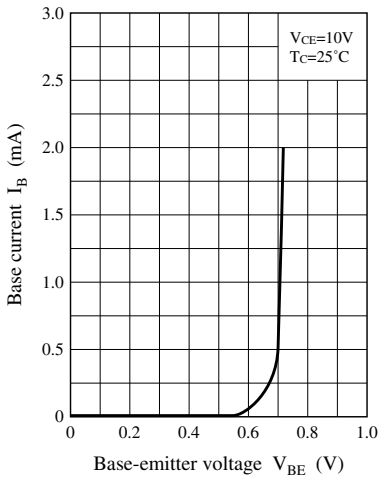
I_C — I_B



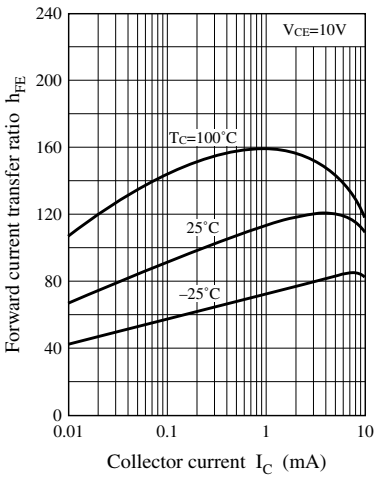
$V_{CE(sat)}$ — I_C



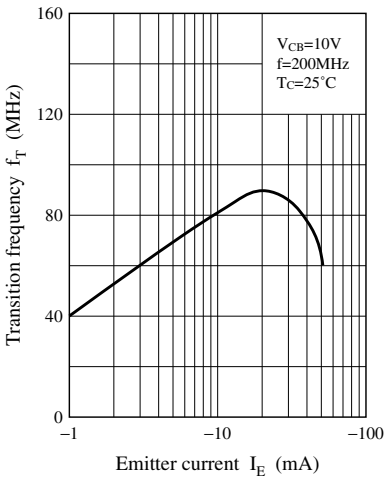
I_B — V_{BE}



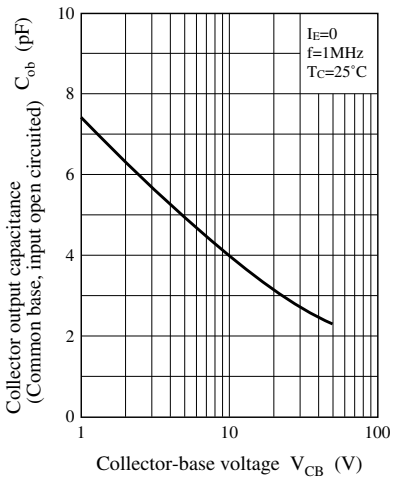
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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