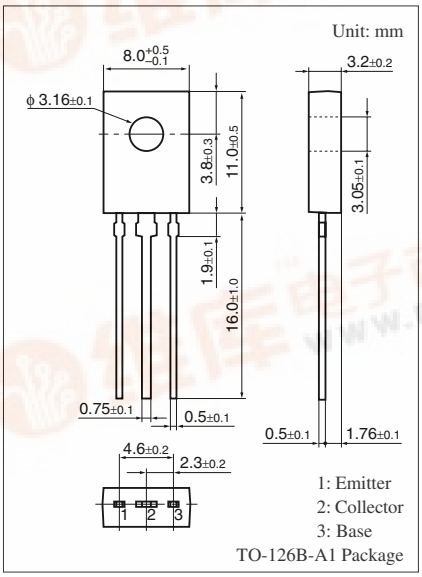
2SA0900 (2SA900)

Silicon PNP epitaxial planar type

For low-frequency Power amplification
Complementary to 2SC1868



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- 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}	−20	V
Collector-emitter voltage (Base open)	V_{CEO}	−18	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	−1	A
Peak collector current	I_{CP}	−2	A
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

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

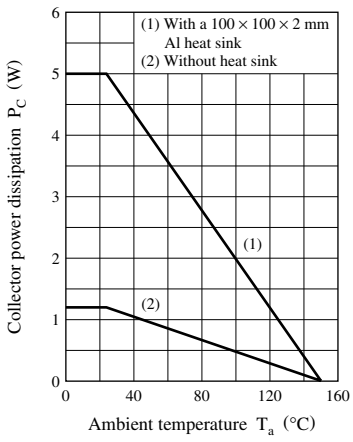
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ µA, $I_E = 0$	−20			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1$ mA, $I_B = 0$	−18			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ µA, $I_C = 0$	−5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10$ V, $I_E = 0$			−1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -18$ V, $I_B = 0$			−10	µA
Forward current transfer ratio	h_{FE1} *	$V_{CE} = -2$ V, $I_C = -500$ mA	130		280	—
	h_{FE2}	$V_{CE} = -2$ V, $I_C = -1.5$ A	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1$ A, $I_B = -50$ mA			− 0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500$ mA, $I_B = -50$ mA			−1.2	V
Transition frequency	f_T	$V_{CB} = -6$ V, $I_E = 50$ mA, f = 200 MHz		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -6$ V, $I_E = 0$, f = 1 MHz		40		pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

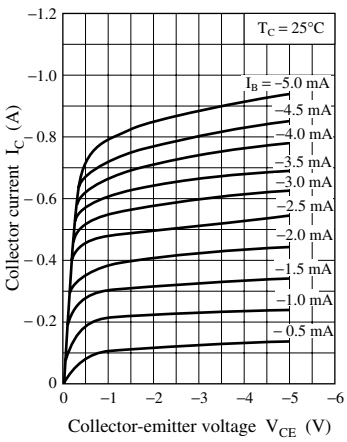
Rank	R	S
h_{FE1}	130 to 210	180 to 280

Note) The part numbers in the parenthesis show conventional part number.

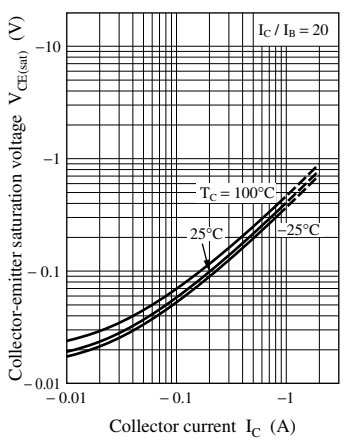
P_C — T_a



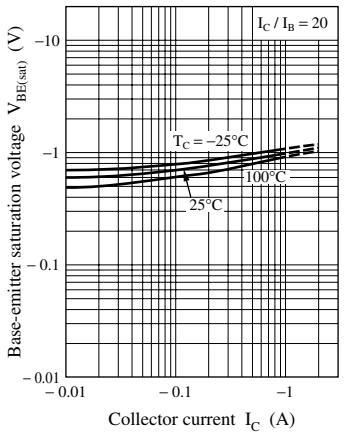
I_C — V_{CE}



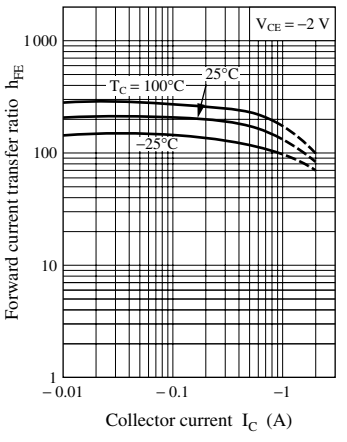
$V_{CE(sat)}$ — I_C



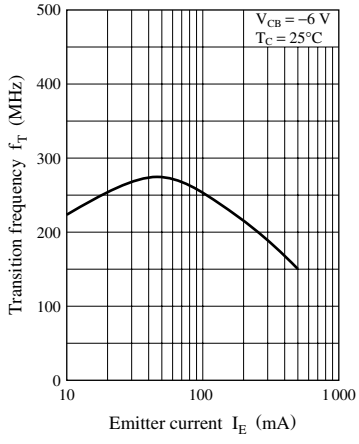
$V_{BE(sat)}$ — I_C



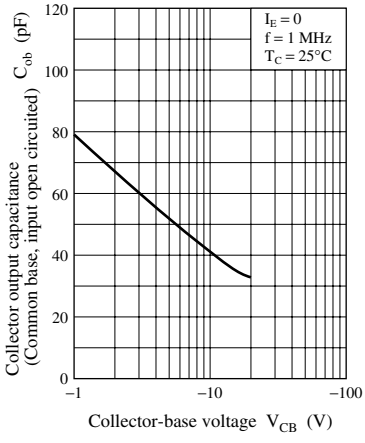
h_{FE} — I_C



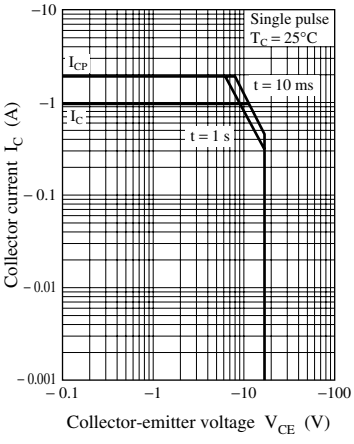
f_T — I_E



C_{ob} — V_{CB}



Safe operation area



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