

2SB0766, 2SB0766A (2SB766, 2SB766A)

Silicon PNP epitaxial planar type

For low-frequency output amplification

Complementary to 2SD0874 (2SD874), 2SD0874A (2SD874A)

■ Features

- Large collector power dissipation P_C
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SB0766 V_{CBO}	-30	V
	2SB0766A	-60	
Collector-emitter voltage (Base open)	2SB0766 V_{CEO}	-25	V
	2SB0766A	-50	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-1	A
Peak collector current	I_{CP}	-1.5	A
Collector power dissipation *	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *: Print circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion.

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SB0766 V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-30			V
	2SB0766A		-60			
Collector-emitter voltage (Base open)	2SB0766 V_{CEO}	$I_C = -2\ \text{mA}$, $I_B = 0$	-25			V
	2SB0766A		-50			
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20\ \text{V}$, $I_E = 0$			-0.1	μA
Forward current transfer ratio *1	h_{FE1} *2	$V_{CE} = -10\ \text{V}$, $I_C = -500\ \text{mA}$	85		340	—
	h_{FE2}	$V_{CE} = -5\ \text{V}$, $I_C = -1\ \text{A}$	50			
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$		-0.2	-0.4	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$		-0.85	-1.20	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 50\ \text{mA}$, $f = 200\ \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		20	30	pF

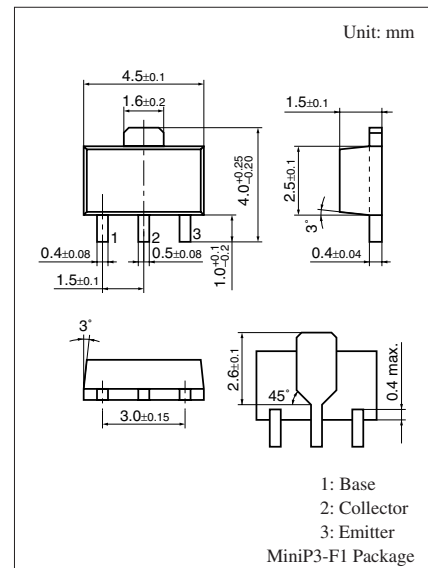
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: Rank classification

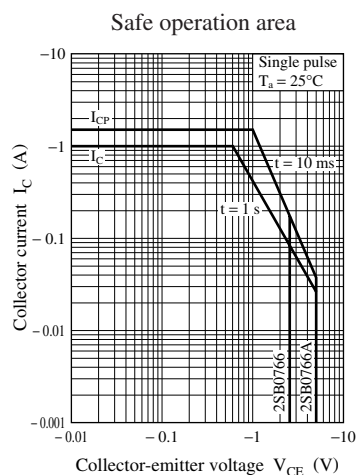
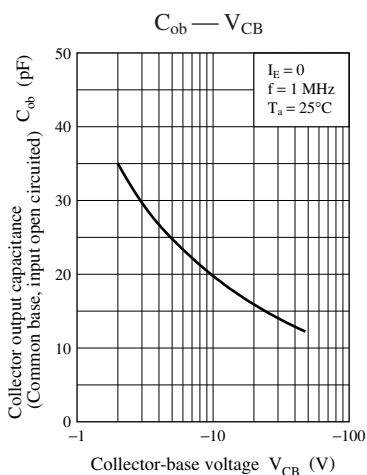
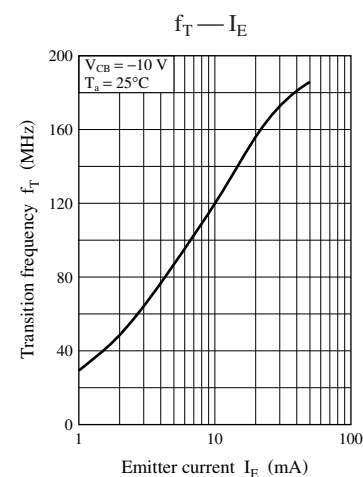
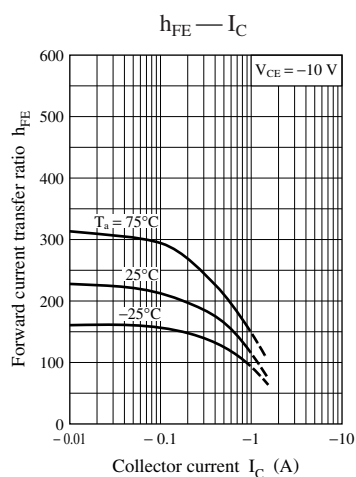
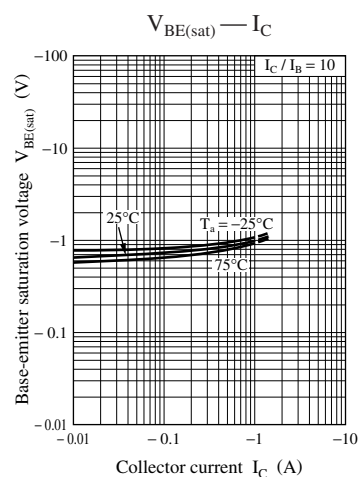
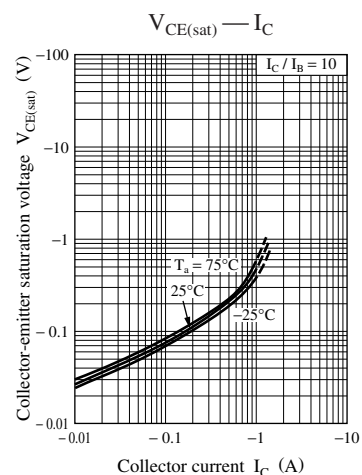
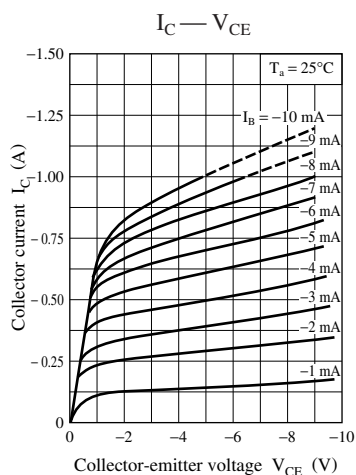
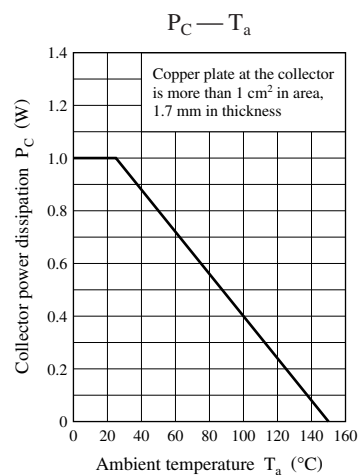
Rank	Q	R	S
h_{FE1}	85 to 170	120 to 240	170 to 340

Note) The part number in the parenthesis shows conventional part number.



Marking Symbol:

- 2SB0766: A
- 2SB0766A: B



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