2SB766, 2SB766A

Silicon PNP epitaxial planer type

For low-frequency output amplification

Complementary to 2SD874 and 2SD874A

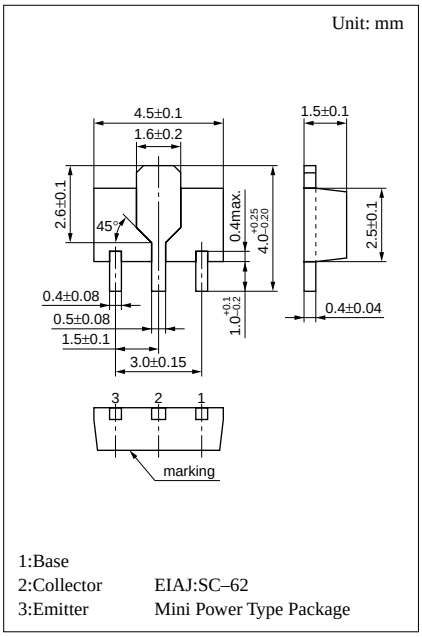
Features

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

Absolute Maximum Ratings (Ta=25˚C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SB766	V_{CBO}	–30	V
	2SB766A		–60	
Collector to emitter voltage	2SB766	V_{CEO}	–25	V
	2SB766A		–50	
Emitter to base voltage		V_{EBO}	–5	V
Peak collector current		I_{CP}	–1.5	A
Collector current		I_C	–1	A
Collector power dissipation		P_C*	1	W
Junction temperature		T_j	150	˚C
Storage temperature		T_{stg}	–55 ~ +150	˚C

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



Marking symbol : A(2SB766)
B(2SB766A)

Electrical Characteristics (Ta=25˚C)

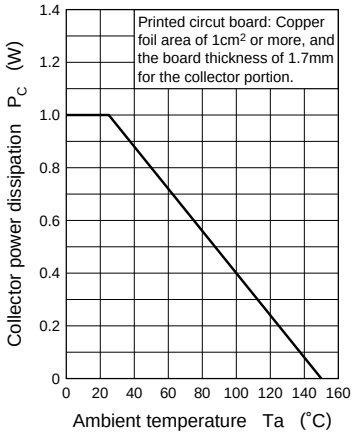
Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		I_{CBO}	V_{CB} = –20V, I_E = 0			– 0.1	μA
Collector to base voltage	2SB766	V_{CBO}	I_C = –10μA, I_E = 0	–30			V
	2SB766A			–60			
Collector to emitter voltage	2SB766	V_{CEO}	I_C = –2mA, I_B = 0	–25			V
	2SB766A			–50			
Emitter to base voltage		V_{EBO}	I_E = –10μA, I_C = 0	–5			V
Forward current transfer ratio		h_{FE1}*1	V_{CE} = –10V, I_C = –500mA*2	85		340	
		h_{FE2}	V_{CE} = –5V, I_C = –1A*2	50			
Collector to emitter saturation voltage		$V_{CE(sat)}$	I_C = –500mA, I_B = –50mA*2		– 0.2	– 0.4	V
Base to emitter saturation voltage		$V_{BE(sat)}$	I_C = –500mA, I_B = –50mA*2		– 0.85	–1.2	V
Transition frequency		f_T	V_{CB} = –10V, I_E = 50mA, f = 200MHz		200		MHz
Collector output capacitance		C_{ob}	V_{CB} = –10V, I_E = 0, f = 1MHz		20	30	pF

*2 Pulse measurement

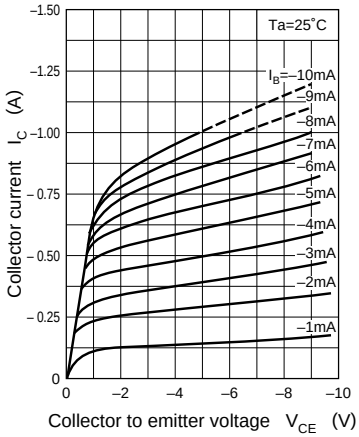
*1 h_{FE1} Rank classification

Rank		Q	R	S
h_{FE1}		85 ~ 170	120 ~ 240	170 ~ 340
Marking Symbol	2SB766	AQ	AR	AS
	2SB766A	BQ	BR	BS

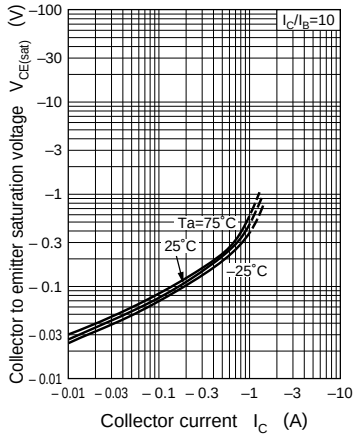
P_C — Ta



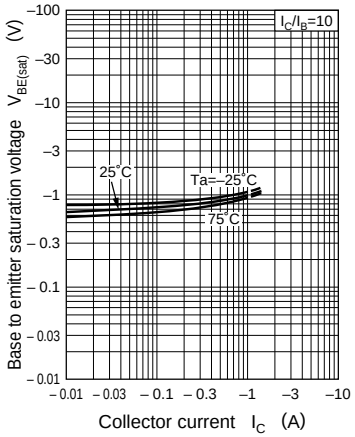
I_C — V_{CE}



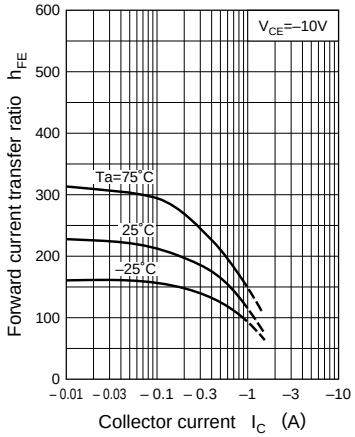
$V_{CE(sat)}$ — I_C



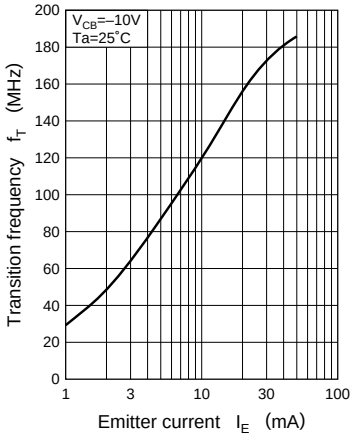
$V_{BE(sat)}$ — I_C



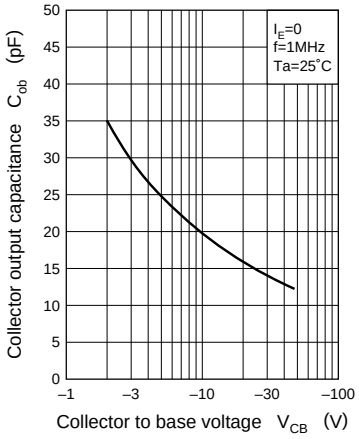
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



Area of safe operation (ASO)