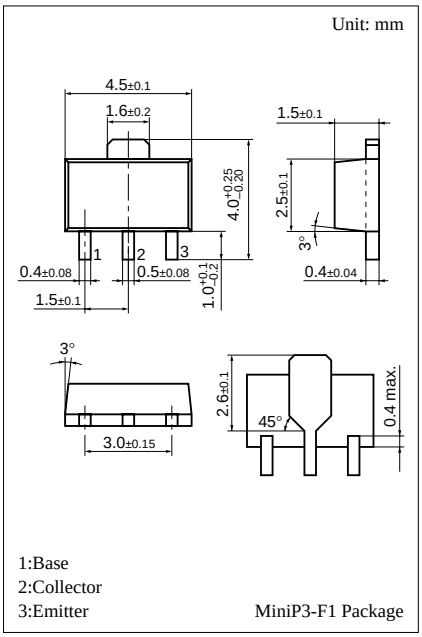
2SB0956 (2SB956)

Silicon PNP epitaxial planar type

For low-frequency power amplification
Complementary to 2SD1280

Features

- Large collector power dissipation P_C.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



Marking symbol : H

Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	–20	V
Collector to emitter voltage	V_{CEO}	–20	V
Emitter to base voltage	V_{EBO}	–5	V
Peak collector current	I_{CP}	–2	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 1cm^2 or more, and the board thickness of 1.7mm for the collector portion

Electrical Characteristics (Ta=25˚C)

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

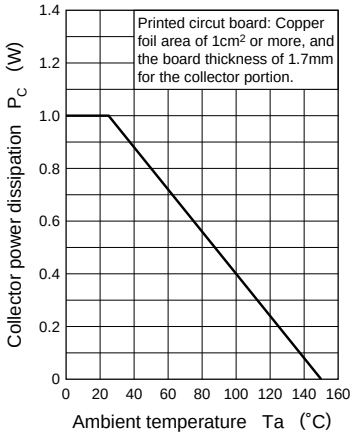
*2 Pulse measurement

*1h_{FE1} Rank classification

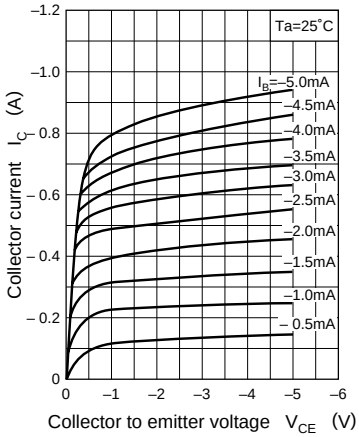
Rank	R	S
h_{FE1}	130 ~ 210	180 ~ 280
Marking Symbol	HR	HS

Note.) The Part number in the Parenthesis shows conventional part number.

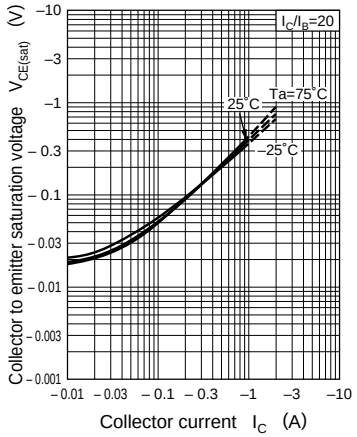
P_C — Ta



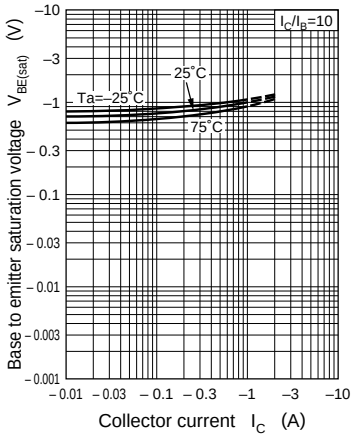
I_C — V_{CE}



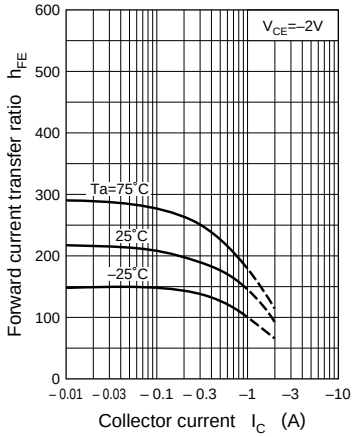
$V_{CE(sat)}$ — I_C



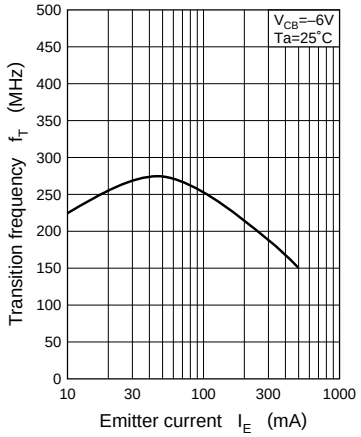
$V_{BE(sat)}$ — I_C



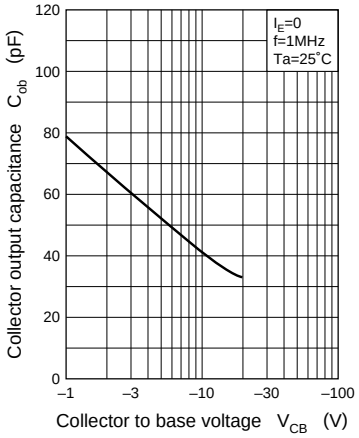
h_{FE} — I_C



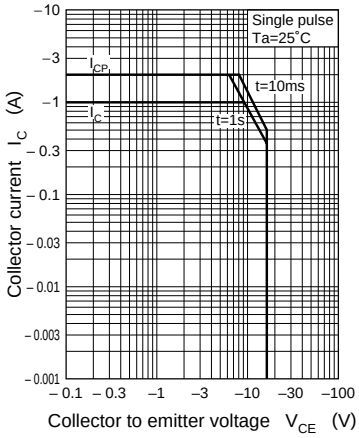
f_T — I_E



C_{ob} — V_{CB}



Area of safe operation (ASO)



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