

2SB1317

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Silicon PNP triple diffusion planar type

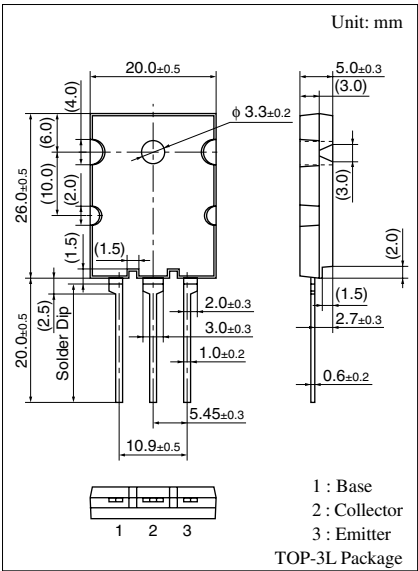
For high power amplification
Complementary to 2SD1975

■ Features

- Excellent current I_C characteristics of forward current transfer ratio h_{FE} vs. collector
- Wide area of safe operation (ASO)
- High transition frequency f_T
- Optimum for the output stage of a Hi-Fi audio amplifier

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-180	V
Collector to emitter voltage	V_{CEO}	-180	V
Emitter to base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-25	A
Collector current	I_C	-15	A
Collector power dissipation	$T_C = 25^\circ\text{C}$ $T_a = 25^\circ\text{C}$	P_C	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



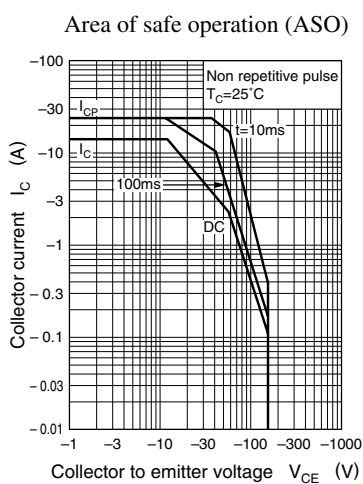
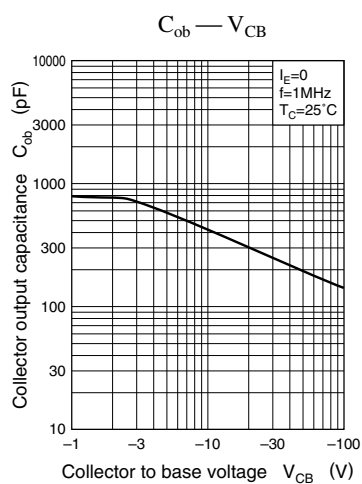
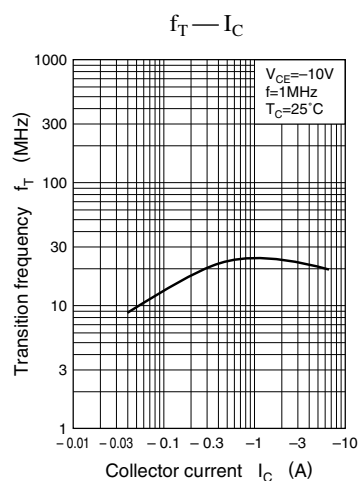
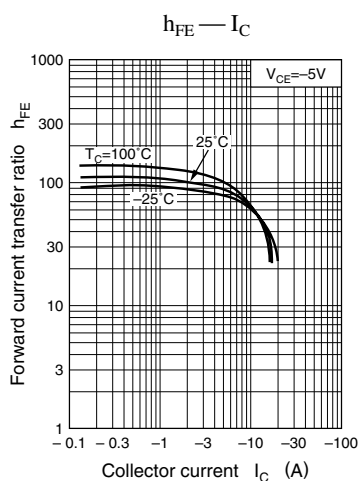
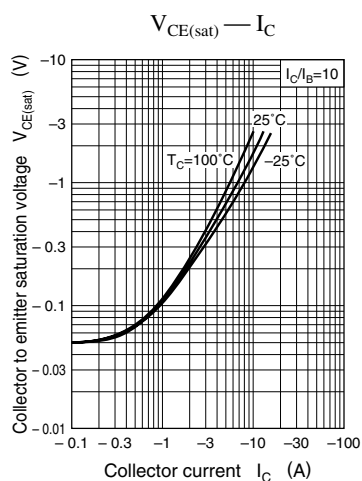
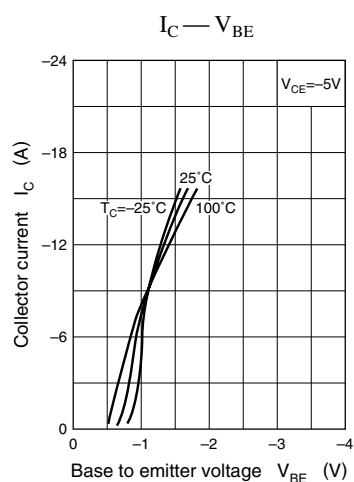
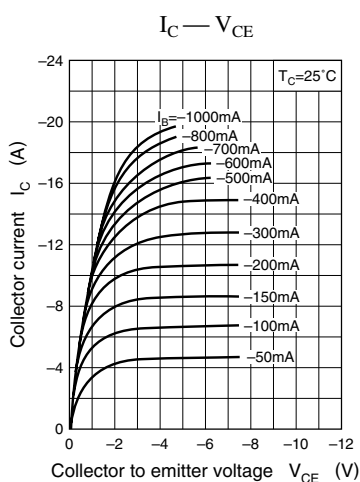
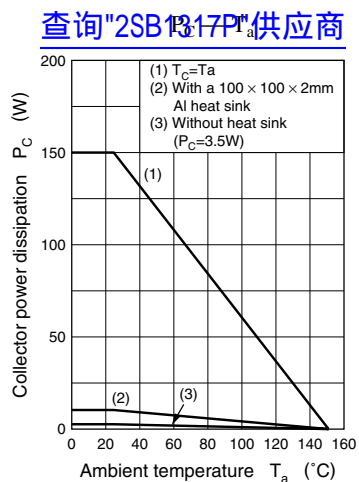
■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -180\text{ V}, I_E = 0$			-50	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -3\text{ V}, I_C = 0$			-50	μA
Forward current transfer ratio	h_{FE1}	$V_{CE} = -5\text{ V}, I_C = -20\text{ mA}$	20			
	h_{FE2}^*	$V_{CE} = -5\text{ V}, I_C = -1\text{ A}$	60		200	
	h_{FE3}	$V_{CE} = -5\text{ V}, I_C = -8\text{ A}$	20			
Base to emitter voltage	V_{BE}	$V_{CE} = -5\text{ V}, I_C = -8\text{ A}$			-1.8	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{ A}, I_B = -1\text{ A}$			-2.5	V
Transition frequency	f_T	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}, f = 1\text{ MHz}$		20		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		450		pF

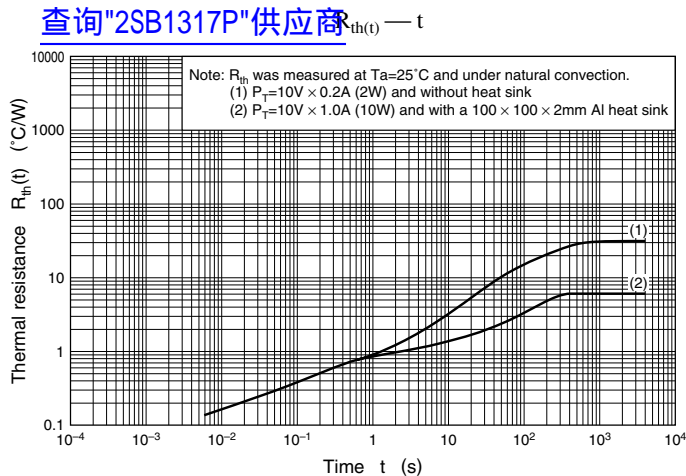
Note) *: Rank classification

Rank	Q	S	P
h_{FE2}	60 to 120	80 to 160	100 to 200

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