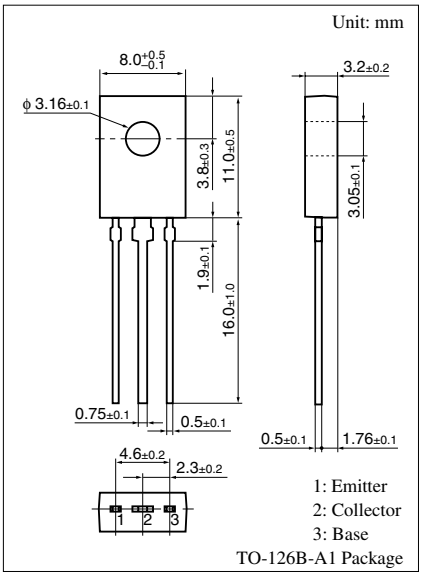
2SA0886 (2SA886)

Silicon PNP epitaxial planar type

For low-frequency power amplification
Complementary to 2SC1847



■ Features

- Output of 4 W can be obtained by a complementary pair with 2SC1847
- TO-126B package which requires no insulation plate for installation to the heat sink

■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	−50	V
Collector to emitter voltage	V_{CEO}	−40	V
Emitter to base voltage	V_{EBO}	−5	V
Peak collector current	I_{CP}	−3	A
Collector current	I_C	−1.5	A
Collector power dissipation	P_C	1.2 *1	W
		5 *2	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗1: Without heat sink
∗2: With a 100 × 100 × 2 mm A1 heat sink

■ Electrical Characteristics $T_C = 25°C$

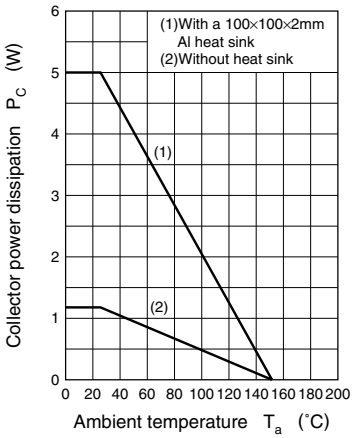
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = −20 V, I_E = 0			−1	μA
	I_{CEO}	V_{CE} = −10 V, I_B = 0			−100	μA
Emitter cutoff current	I_{EBO}	V_{EB} = −5 V, I_C = 0			−10	μA
Collector to base voltage	V_{CBO}	I_C = −1 mA, I_E = 0	−50			V
Collector to emitter voltage	V_{CEO}	I_C = −2 mA, I_B = 0	−40			V
Forward current transfer ratio *	h_{FE}	V_{CE} = −5 V, I_C = −1 A	80		220	
Collector to emitter saturation voltage	$V_{CE(sat)}$	I_C = −1.5 A, I_B = − 0.15 A			−1.0	V
Base to emitter saturation voltage	$V_{BE(sat)}$	I_C = −2 A, I_B = − 0.2 A			−1.5	V
Transition frequency	f_T	V_{CB} = −5 V, I_E = 0.5 A, f = 200 MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB} = −20 V, I_E = 0, f = 1 MHz		45		pF

Note) ∗: Rank classification

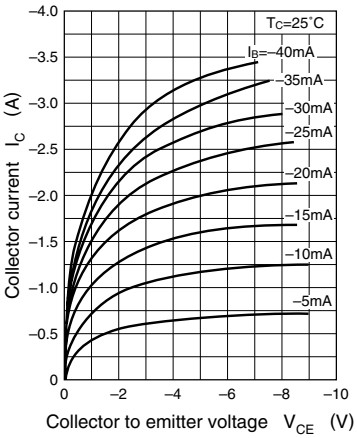
Rank	Q	R
h_{FE}	80 to 160	120 to 220

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

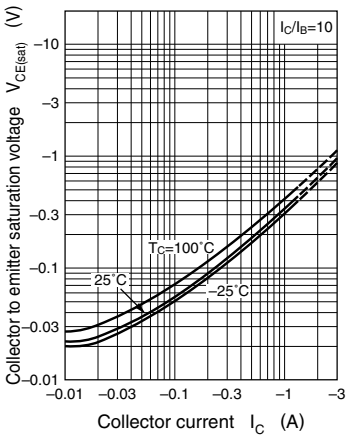
P_C — T_a



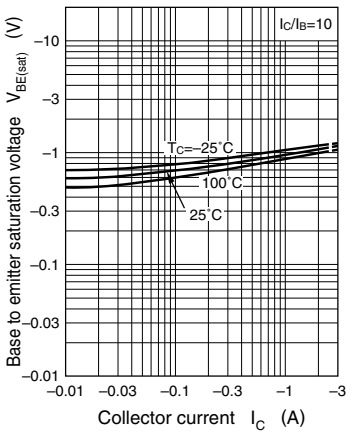
I_C — V_{CE}



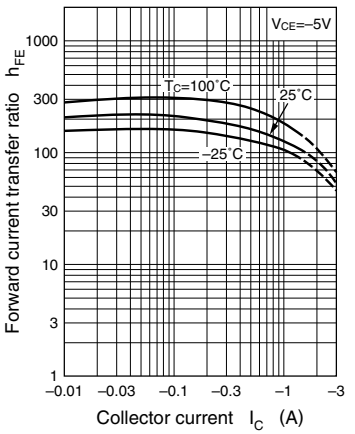
$V_{CE(sat)}$ — I_C



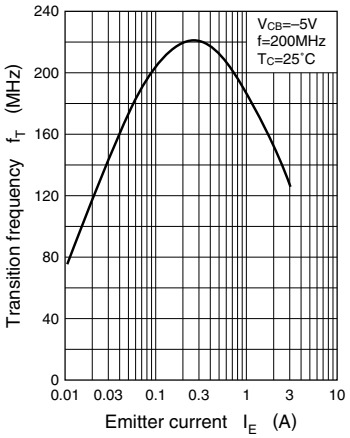
$V_{BE(sat)}$ — I_C



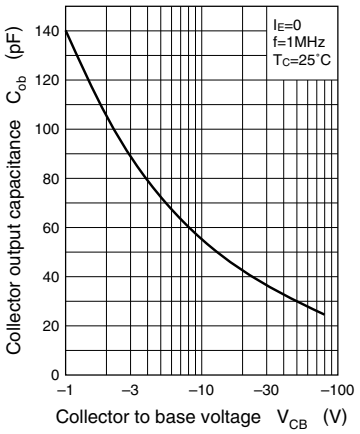
h_{FE} — I_C



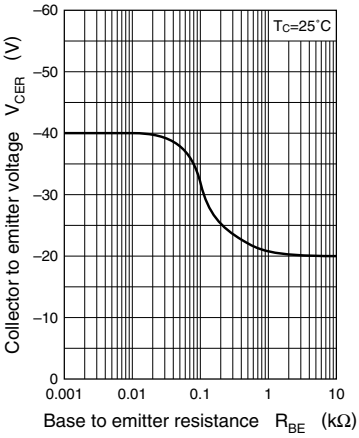
f_T — I_E



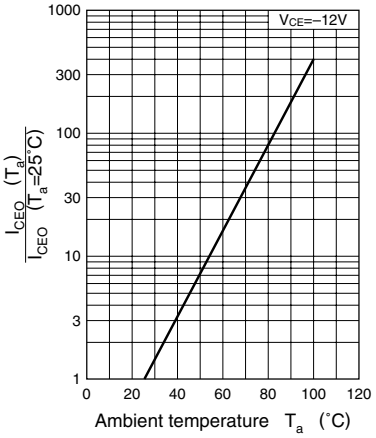
C_{ob} — V_{CB}



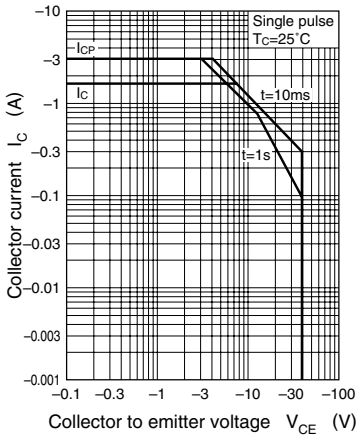
V_{CER} — R_{BE}



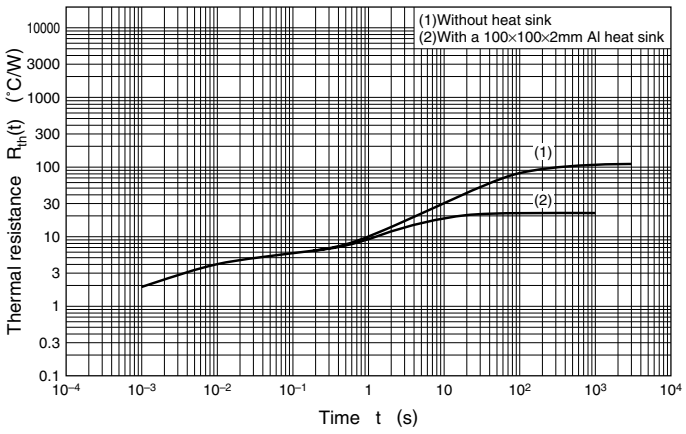
I_{CEO} — T_a



Area of safe operation (ASO)



$R_{th(t)}$ — t



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