2SC1846

Silicon NPN epitaxial planar type

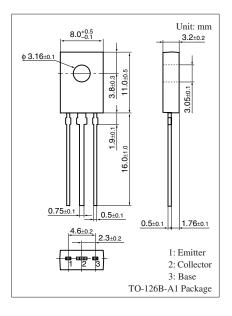
For medium output power amplification Complementary to 2SA0885

■ Features

- \bullet Low collector-emitter saturation voltage $V_{\text{CE}(\text{sat})}$
- Output of 3 W can be obtained by a complementary pair with 2SA0885
- TO-126B package which requires no insulation plate for installation to the heat sink

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	45	V
Collector-emitter voltage (Base open)	V _{CEO}	35	V
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	1.2	W
		5.0 *	
Junction temperature	T_{j}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C



Note) *: With a $100 \times 100 \times 2$ mm Al heat sink

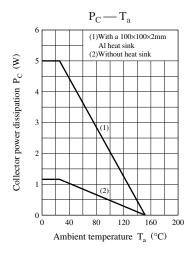
■ Electrical Characteristics $T_a = 25$ °C ± 3 °C

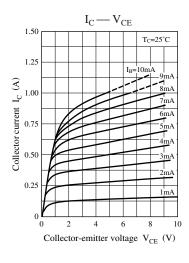
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 1 \text{ mA}, I_E = 0$	45			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 2 \text{ mA}, I_B = 0$	35			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 20 \text{ V}, I_{E} = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = 20 \text{ V}, I_{B} = 0$			100	μΑ
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5 \text{ V}, I_{C} = 0$			10	μΑ
Forward current transfer ratio	h _{FE1} *	$V_{CE} = 10 \text{ V}, I_{C} = 500 \text{ mA}$	85		340	_
	h _{FE2}	$V_{CE} = 5 \text{ V}, I_{C} = 1 \text{ A}$	50			
Collector-emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$			0.5	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_{E} = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$			20	pF
(Common base, input open circuited)						

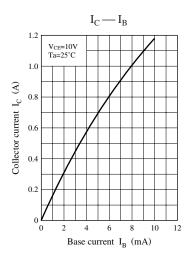
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

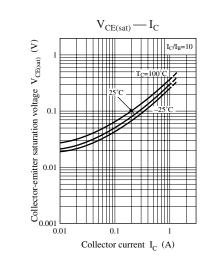
2. *: Rank classification

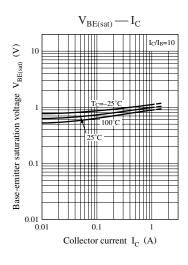
Rank	Q	R	S
h _{FE1}	85 to 170	120 to 240	170 to 340

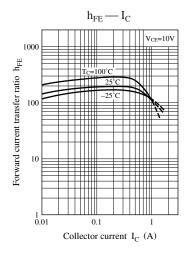


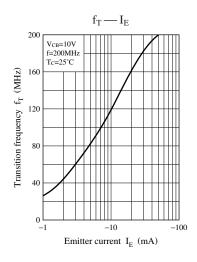


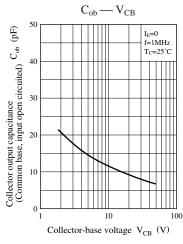


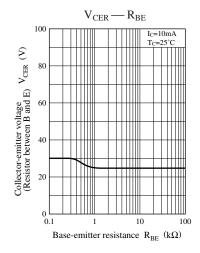


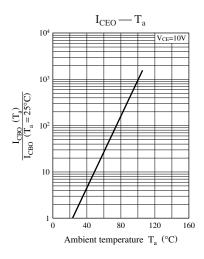


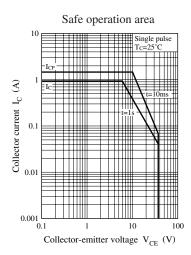












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