

# 2SC1847

## Silicon NPN Epitaxial Planar Type

Medium Power Amplifier  
Complementary Pair with 2SA886

### ■ Features

- 4W output in complementary pair with 2SA886
- TO-126 package, no insulator needed when fixing to a heat sink

### ■ Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CB0}$	50	V
Collector-emitter voltage	$V_{CE0}$	40	V
Emitter-base voltage	$V_{EB0}$	5	V
Peak collector current	$I_{CP}$	3	A
Collector current	$I_C$	1.5	A
Collector power dissipation	$P_C$	1.2 <sup>*1</sup>	W
		5 <sup>*2</sup>	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ +150	°C

\*1 Without heat sink

\*2 With a 100×100×2mm Al heat sink

### ■ Electrical Characteristics (Tc=25°C)

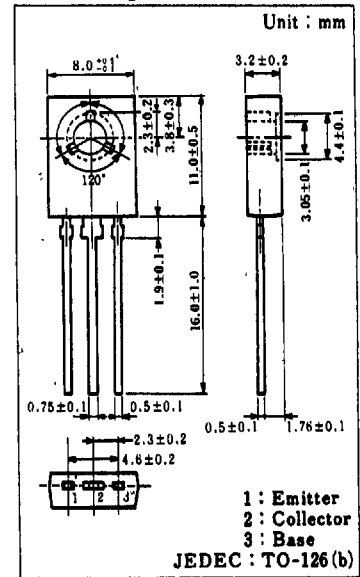
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	$I_{CB0}$	$V_{CB}=20V, I_E=0$			1	$\mu A$
	$I_{CE0}$	$V_{CE}=10V, I_B=0$			100	
Emitter cutoff current	$I_{EB0}$	$V_{EB}=5V, I_C=0$			10	$\mu A$
Collector-base voltage	$V_{CB0}$	$I_C=1mA, I_E=0$	50			V
Collector-emitter voltage	$V_{CE0}$	$I_C=2mA, I_B=0$	40			V
DC current gain	$h_{FE}^{*1}$	$V_{CE}=5V, I_C=1A^{*2}$	50	120	220	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A^{*2}$			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2A, I_B=0.2A^{*2}$			1.5	V
Transition frequency	$f_T$	$V_{CB}=5V, I_E=-0.5A^{*2}, f=200MHz$		150		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=20V, I_E=0, f=1MHz$		35		pF

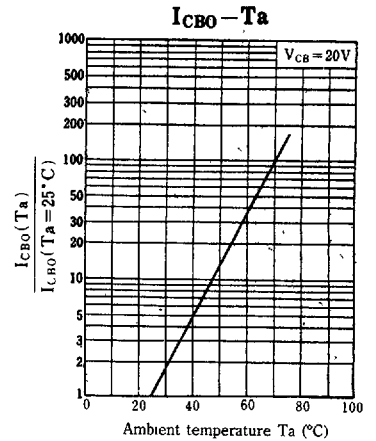
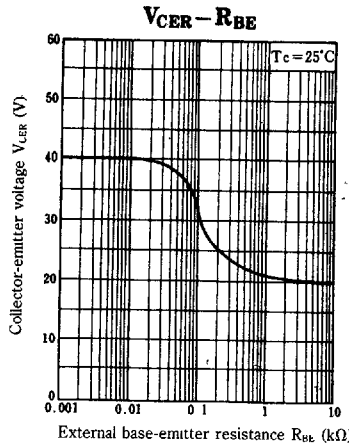
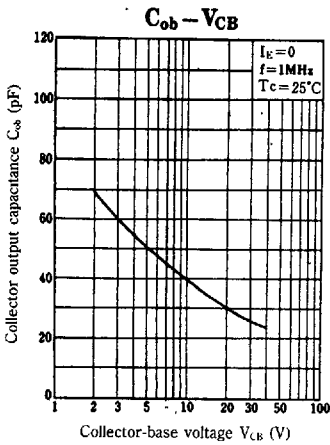
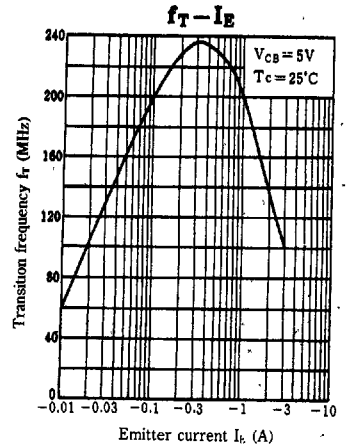
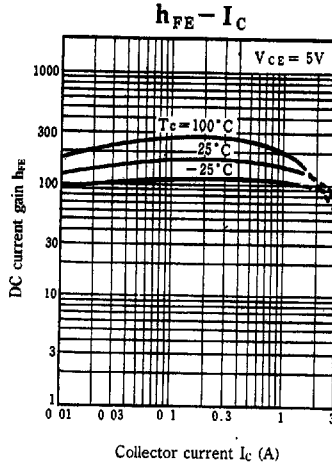
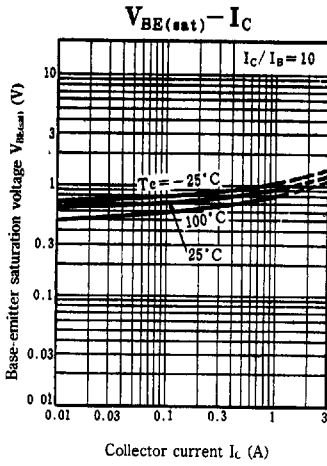
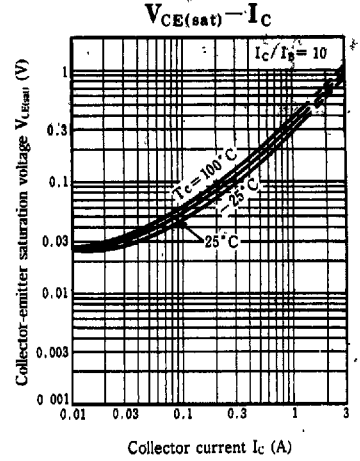
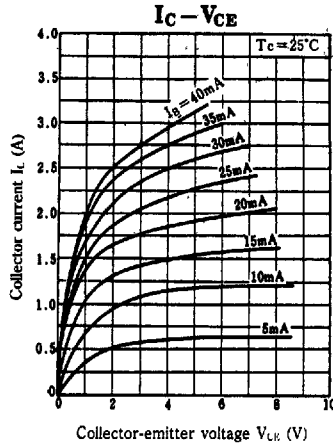
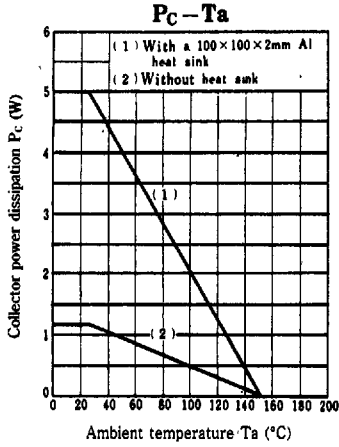
\*2 Pulse measurement

### \*1 $h_{FE}$ Classifications

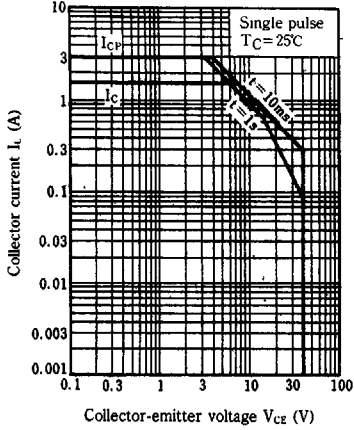
Class	P	Q	R
$h_{FE}$	50~100	80~160	120~220

### ■ Package Dimensions





Area of safe operation (ASO)



$R_{th}(t) - t$

