

# 2SB1437

## Silicon PNP Epitaxial Planar Type

For low-frequency output amplification  
Complementary pair with 2SC2181

### ■ Features

- High collector-emitter voltage  $V_{CEO}$
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Automatic insertion by radial taping possible

### ■ Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-100	V
Collector-Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Collector Current	$I_{CP}$	-1.5	A
Collector Current	$I_C$	-1	A
Collector Power Dissipation	$P_C^*$	1	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

\*Copper foil on PCB against Collector: 1.7mm thick, 1cm<sup>2</sup> in area

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

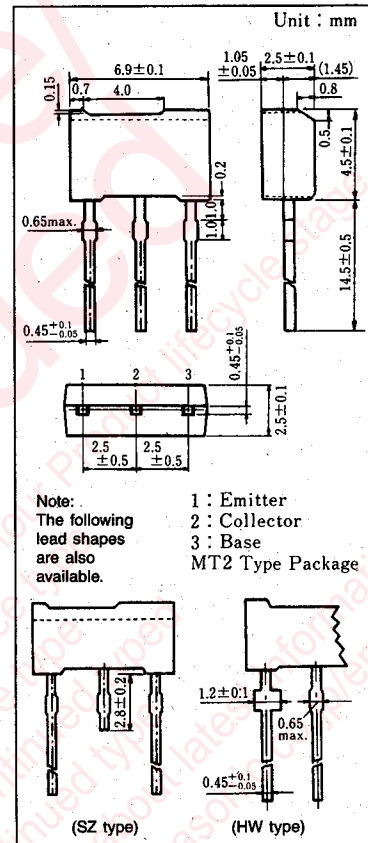
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-Base Voltage	$V_{CBO}$	$I_C = -10 \mu\text{A}$ , $I_E = 0$	-100			V
Collector-Emitter Voltage	$V_{CEO}$	$I_C = -1 \text{mA}$ , $I_E = 0$	-100			V
Emitter-Base Voltage	$V_{EBO}$	$I_E = -10 \mu\text{A}$ , $I_C = 0$	-5			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -50\text{V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
DC Current Gain	$h_{FE1}^{*1}$	$V_{CE} = -2 \text{V}$ , $I_C = -100\text{mA}$	120		340	
	$h_{FE2}$	$V_{CE} = -2 \text{V}$ , $I_C = -500\text{mA}$	80			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$ , $I_B = -25\text{mA}^{*2}$		-0.13	-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}$ , $I_B = -25\text{mA}^{*2}$		-0.8	-1.2	V
Transition Frequency	$f_T$	$V_{CB} = -10\text{V}$ , $I_E = 50\text{mA}$ , $f = 200\text{MHz}$		120		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1 \text{MHz}$		27	40	pF

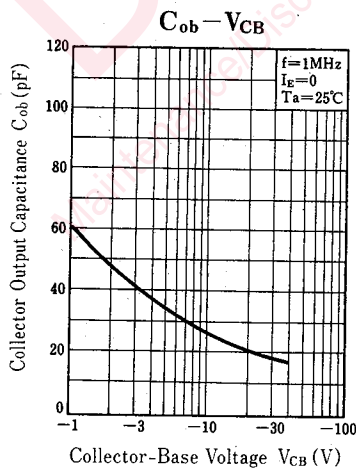
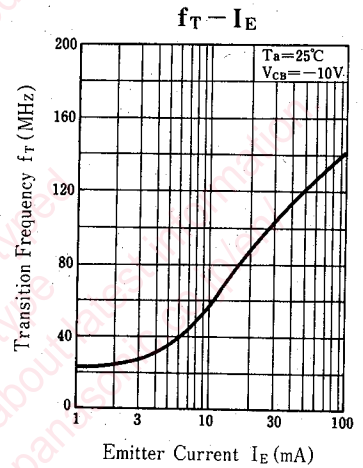
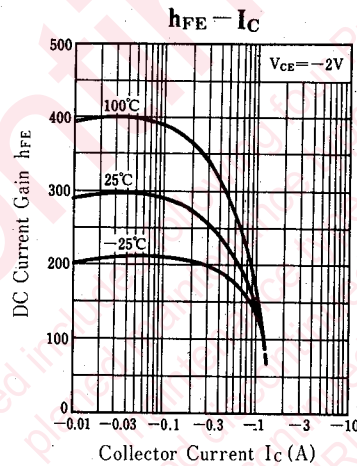
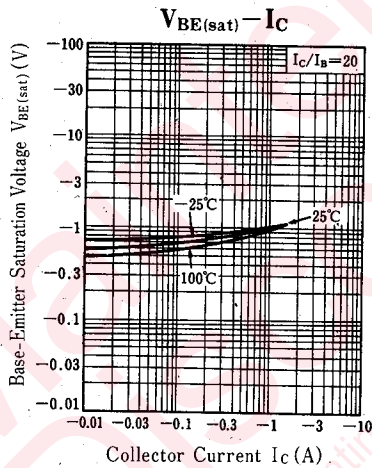
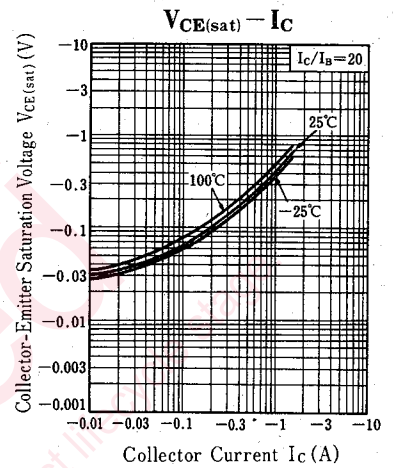
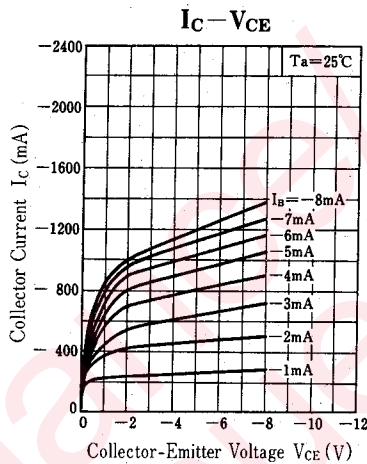
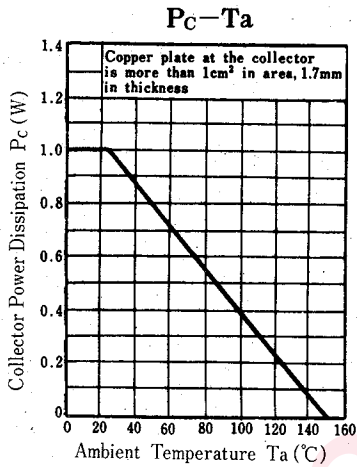
\*2 Pulse Measurement

#### \*1 $h_{FE1}$ Ranking

Rank	R	S
$h_{FE1}$	120~240	170~340

### ■ Package Dimensions





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