

# 2SB1414

## Silicon PNP Epitaxial Planar Type

AF Drivers, High Power Amplifier  
Complementary Pair with 2SD2134

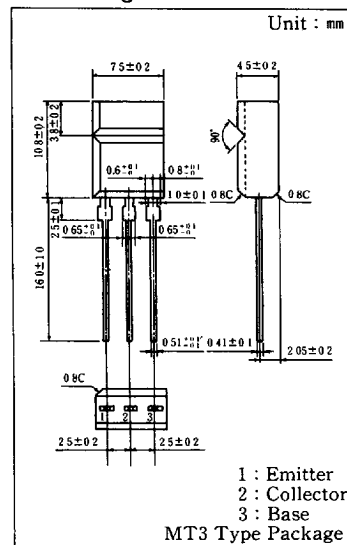
### ■ Features

- Very good linearity of DC current gain ( $h_{FE}$ )
- High transition frequency ( $f_T$ )
- Automatic mounting by radial taping is possible.

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

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CBO}$	-180	V
Collector-emitter voltage	$V_{CEO}$	-180	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	$P_C$	1.5	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

### ■ Package Dimensions



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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-emitter voltage	$V_{CEO}$	$I_C = -100\mu\text{A}, I_B = 0$	-180			V
Emitter-base voltage	$V_{EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
DC current gain	$h_{FE1}^*$	$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	65	160	330	
	$h_{FE2}$	$V_{CE} = -5\text{V}, I_C = -500\text{mA}$	50	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.5	-2.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-1.0	-2.0	V
Transition frequency	$f_T$	$V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		200		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		30	50	pF

### \* $h_{FE1}$ Classifications

Class	P	Q	R	S
$h_{FE1}$	65~110	90~155	130~220	185~330

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