

# 2SB1063

## Silicon PNP Planar Type

High Power Amplifier  
Complementary Pair with 2SD1499

### ■ Features

- Very good linearity of DC current gain ( $h_{FE}$ )
- Wide area of safety operation (ASO)
- High transition frequency ( $f_T$ )
- "Full Pack" package for simplified mounting on a heat sink with one screw

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

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CB0}$	-100	V
Collector-emitter voltage	$V_{CE0}$	-100	V
Emitter-base voltage	$V_{EB0}$	-5	V
Peak collector current	$I_{CP}$	-8	A
Collector current	$I_C$	-5	A
Collector power dissipation	$T_c=25^\circ\text{C}$	40	W
	$T_a=25^\circ\text{C}$	2	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

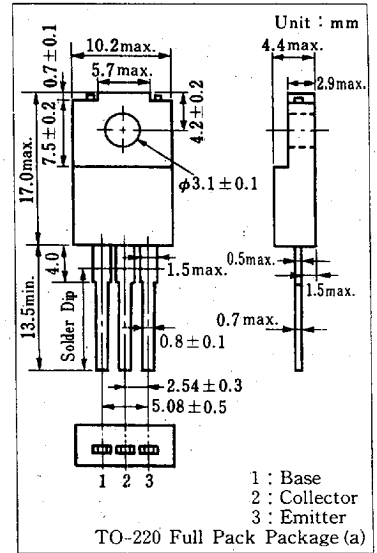
### ■ Electrical Characteristics ( $T_c=25^\circ\text{C}$ )

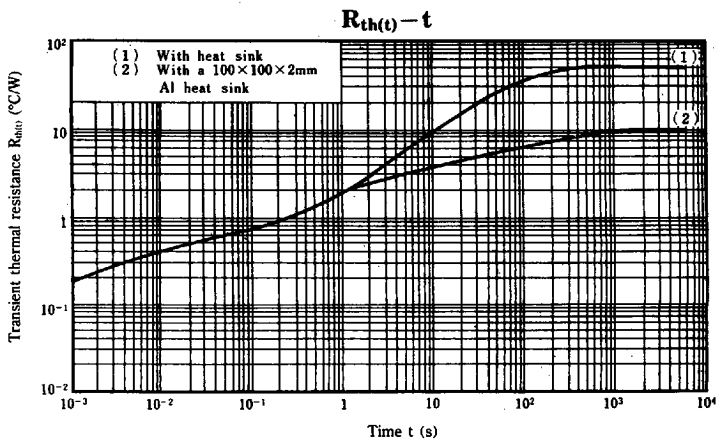
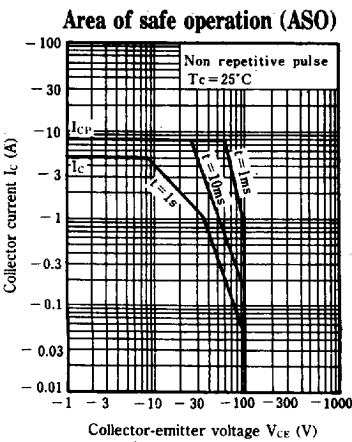
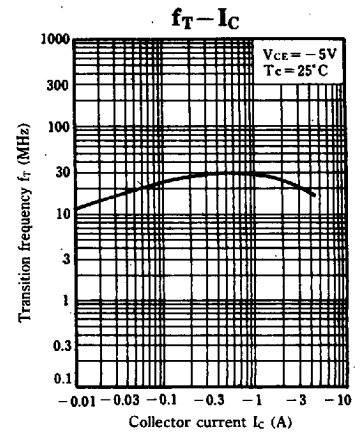
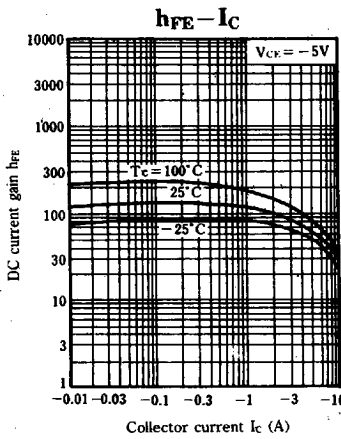
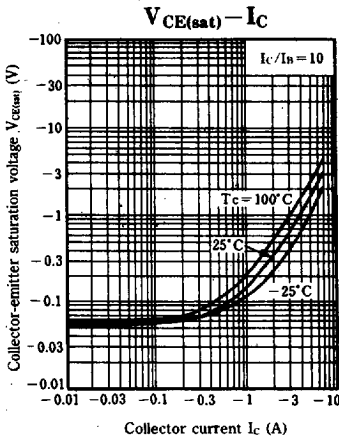
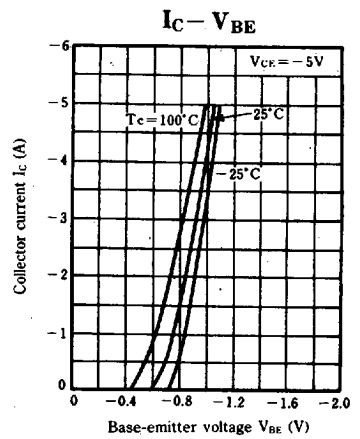
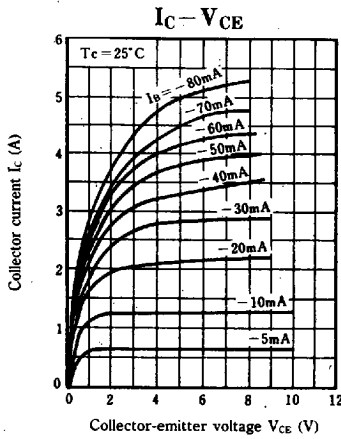
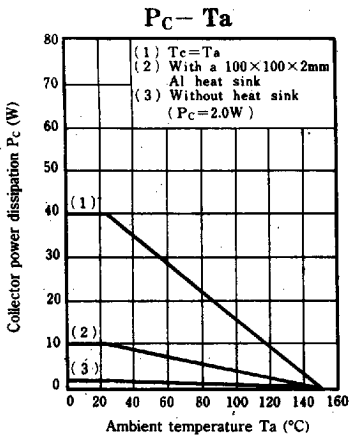
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	$I_{CB0}$	$V_{CB} = -100\text{ V}, I_E = 0$			-50	$\mu\text{A}$
Emitter cutoff current	$I_{EB0}$	$V_{EB} = -3\text{ V}, I_C = 0$			-50	$\mu\text{A}$
DC current gain	$h_{FE1}$	$V_{CE} = -5\text{ V}, I_C = -20\text{ mA}$	20			
	$h_{FE2}^*$	$V_{CE} = -5\text{ V}, I_C = -1\text{ A}$	40		200	
	$h_{FE3}$	$V_{CE} = -5\text{ V}, I_C = -3\text{ A}$	20			
Base-emitter voltage	$V_{BE}$	$V_{CE} = -5\text{ V}, I_C = -3\text{ A}$			-1.8	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3\text{ A}, I_B = -0.3\text{ A}$			-2	V
Transition frequency	$f_T$	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}, f = 1\text{ MHz}$		20		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, f = 1\text{ MHz}$		170		pF

#### \* $h_{FE2}$ Classifications

Class	R	Q	P
$h_{FE2}$	40 ~ 80	60 ~ 120	100 ~ 200

### ■ Package Dimensions





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