

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_{CBO}	−100	V
Collector-emitter voltage		V_{CEO}	−100	V
Emitter-base voltage		V_{EBO}	−5	V
Peak collector current		I_{CP}	−8	A
Collector current		I_C	−5	A
Collector power dissipation	$T_c=25^{\circ}\text{C}$	P_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_{CBO}	$V_{CB} = -100\text{ V}, I_E = 0$			-50	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -3\text{ V}, I_C = 0$			-50	μA
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

