

2SD946, 2SD946A, 2SD946B ■ Package Dimensions

Silicon PNP Epitaxial Planar Darlington Type

AF Amplifier

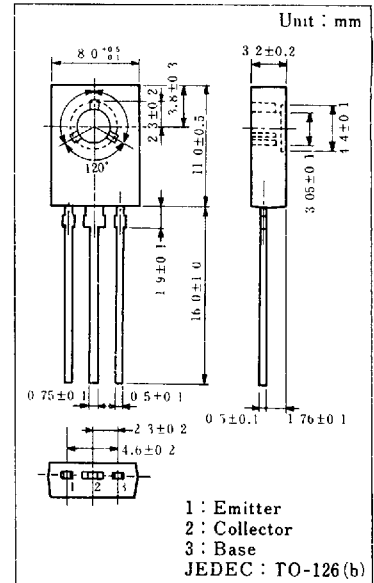
Complementary Pair with 2SB895, 2SB895A

■ Features

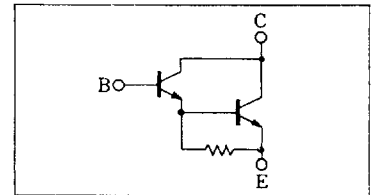
- High DC current gain (h_{FE}) design suitable for motor driver and hammer driver
- Driver having no shunt resistor

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

Item	Symbol	Value	Unit
Collector-base voltage	2SD946	30	V
	2SD946A	60	
	2SD946B	100	
Collector-emitter voltage	2SD946	25	V
	2SD946A	50	
	2SD946B	80	
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1.5	A
Collector power dissipation ($T_c=25^\circ\text{C}$)	I_C	1	A
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	$-55 \sim +150$	$^\circ\text{C}$



■ Inner Circuit

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

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB}=25\text{V}$, $I_E=0$			100	nA
Emitter cutoff current	I_{EBO}	$V_{EB}=4\text{V}$, $I_C=0$			100	nA
Collector-base voltage	2SD946	$I_C=100\mu\text{A}$, $I_E=0$	30			V
	2SD946A		60			
	2SD946B		100			
Collector-emitter voltage	2SD946	$I_C=1\text{mA}$, $I_B=0$	25			V
	2SD946A		50			
	2SD946B		80			
Emitter-base voltage	V_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	5			V
DC current gain	h_{FE}^{*1}	$V_{CE}=10\text{V}$, $I_C=1\text{A}^{*2}$	4000		40000	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1\text{A}$, $I_B=1\text{mA}^{*2}$			1.8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1\text{A}$, $I_B=1\text{mA}^{*2}$			2.2	V
Transition frequency	f_T	$V_{CB}=10\text{V}$, $I_E=-50\text{mA}$, $f=200\text{MHz}$		150		MHz

*² Pulse measurement*¹ h_{FE} Classifications

Class	Q	R	S
h_{FE}	4000~10000	8000~20000	16000~40000

■ 6932852 0016624 1T7 ■

