

Silicon PNP Darlington Power Transistors

2SB1255

DESCRIPTION

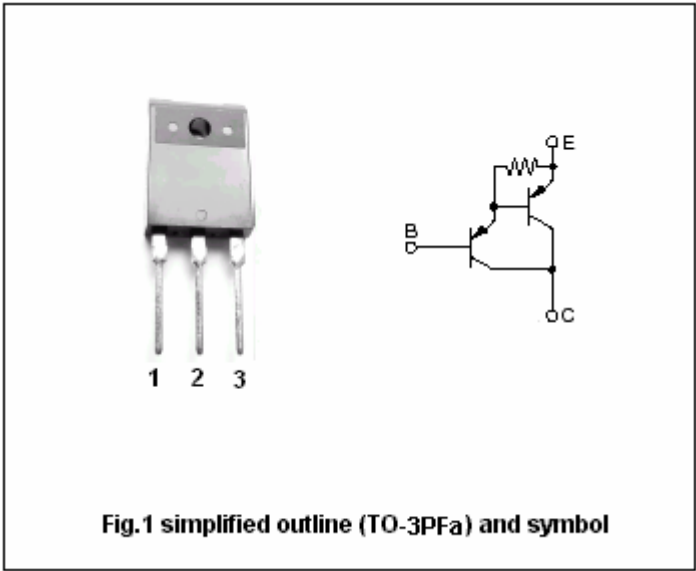
- With TO-3PFa package
- Optimum for 90W Hi-Fi output
- High foward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage
- Complement to type 2SD1895

APPLICATIONS

- Power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings($T_a=25\text{ }^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-160	V
V_{CEO}	Collector-emitter voltage	Open base	-140	V
V_{EBO}	Emitter-base voltage	Open collector	-8	V
I_C	Collector current		-15	A
I_{CP}	Collector current-peak		-12	A
P_C	Collector power dissipation	$T_C=25$	100	W
			3	
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

Tj=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CEO}	Collector-emitter voltage	$I_C=-30mA$; $I_B=0$	-140			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-7A$; $I_B=-7mA$			-2.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=-7A$; $I_B=-7mA$			-3.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=-160V$; $I_E=0$			-100	μA
I_{CEO}	Collector cut-off current	$V_{CE}=-140V$; $I_B=0$			-100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5V$; $I_C=0$			-100	μA
h_{FE-1}	DC current gain	$I_C=-1A$; $V_{CE}=-5V$	2000			
h_{FE-2}	DC current gain	$I_C=-7A$; $V_{CE}=-5V$	5000		30000	
f_T	Transition frequency	$I_C=0.5A$; $V_{CE}=-10V$; $f=1MHz$		20		MHz

Switching times

t_{on}	Turn-on time	$I_C=-7A$; $V_{CC}=-50V$ $I_{B1}=-I_{B2}=-7mA$		1.0		μs
t_{stg}	Storage time			1.5		μs
t_f	Fall time			1.2		μs

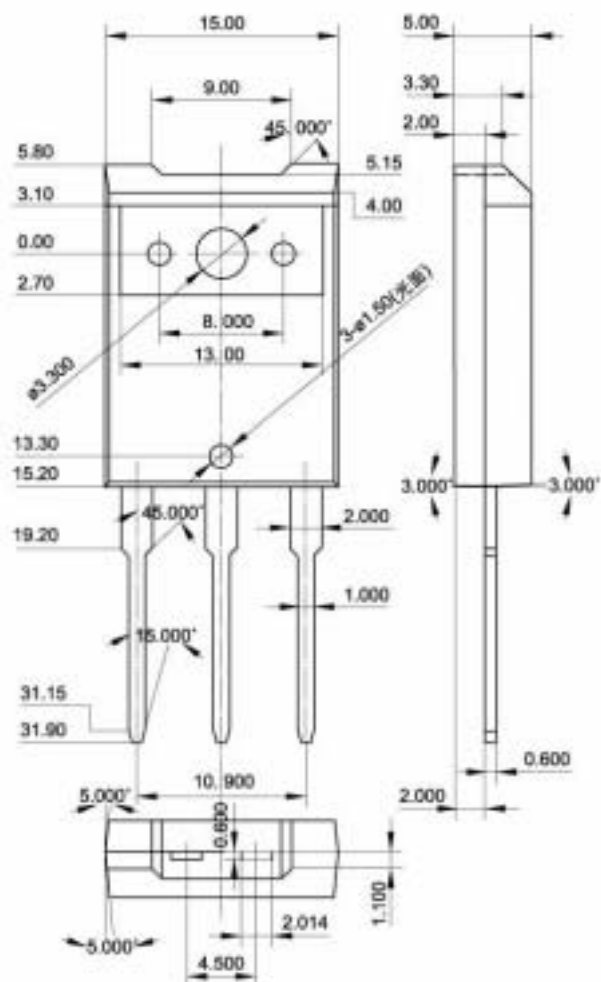
◆ h_{FE-2} classifications

Q	P
5000-15000	8000-30000

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PACKAGE OUTLINE

Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.30\text{mm}$)