Silicon NPN Darlington Power Transistors 2SD1895

DESCRIPTION

- With TO-3PFa package
- Optimum for 90W HiFi output
- High foward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage
- Complement to type 2SB1255

APPLICATIONS

- Power amplification

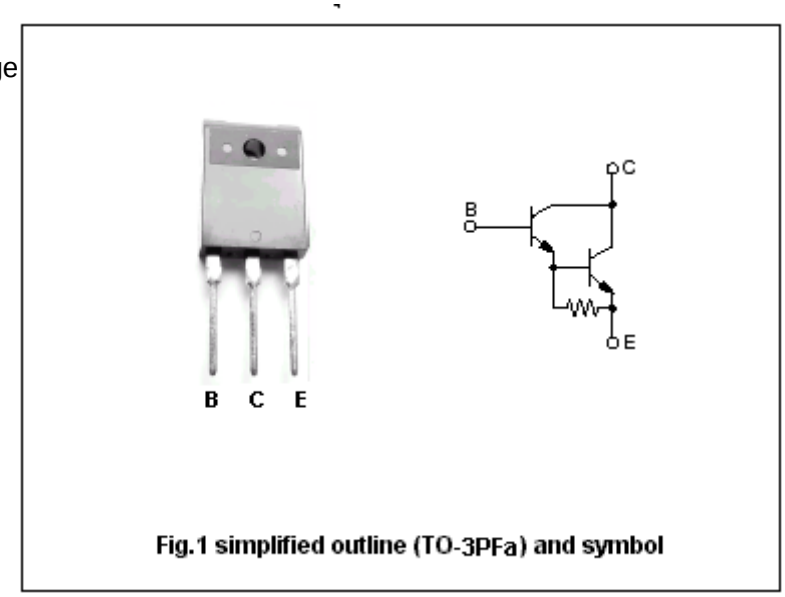


Fig.1 simplified outline (TO-3PFa) and symbol

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings(Ta=25℃)

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	5	V
I_C	Collector current		15	A
I_{CP}	Collector current-peak		8	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}	Emitter-base 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		2.0		μs
t_{stg}	Storage time			6.0		μs
t_f	Fall time			1.2		μs

◆ **h_{FE-2} classifications**

Q	P
5000-15000	8000-30000

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PACKAGE OUTLINE

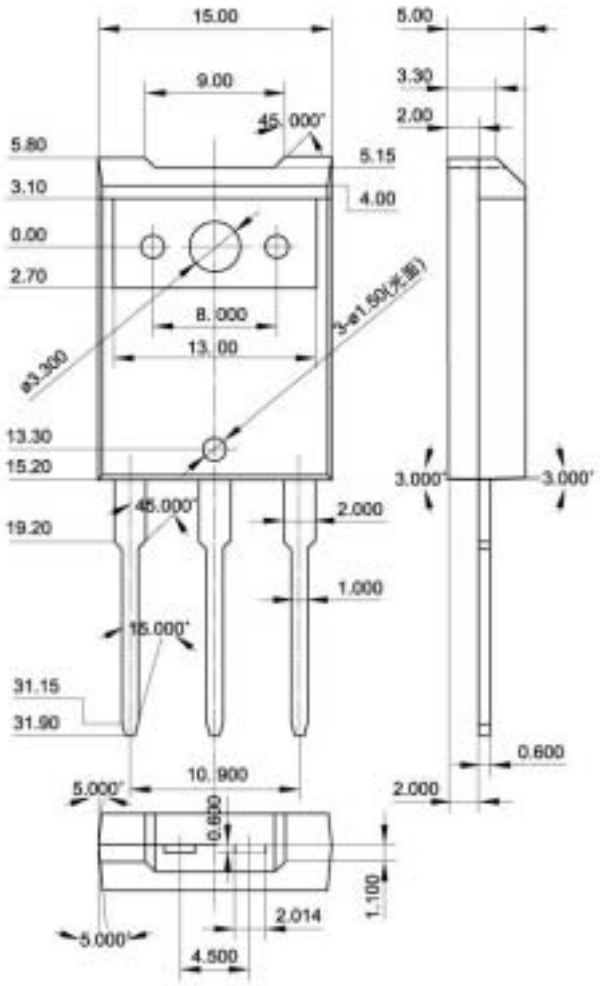


Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)