

Silicon NPN Darlington Power Transistors

2SD1895

DESCRIPTION

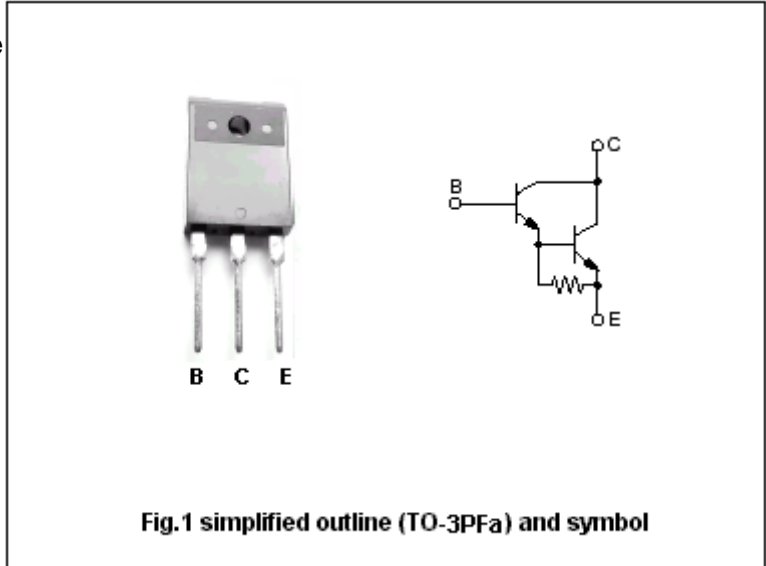
- With TO-3PFa package
- Optimum for 90W HiFi output
- High forward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage
- Complement to type 2SB1255

APPLICATIONS

- Power amplification

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

T_j=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

