

Silicon NPN Power Transistors

2SD1435

DESCRIPTION

- With TO-3PN package
- DARLINGTON
- High DC current gain
- Complement to type 2SB1031

APPLICATIONS

- For low frequency power amplifier and high current switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

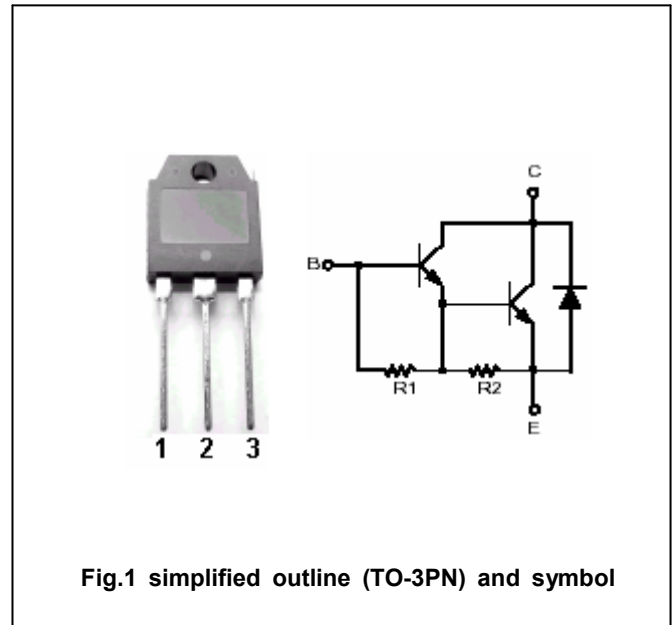


Fig.1 simplified outline (TO-3PN) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_{CM}	Collector current-Peak		20	A
I_B	Base current		3	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$	100	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =1mA, R _{BE} =∞	100			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50mA, I _C =0	7			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =8A, I _B =16mA			2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =15A, I _B =150mA			3.0	V
V _{BESat-1}	Base-emitter saturation voltage	I _C =8A, I _B =16mA			2.5	V
V _{BESat-2}	Base-emitter saturation voltage	I _C =15A, I _B =150mA			3.5	V
I _{CBO}	Collector cut-off current	V _{CB} =100V, I _E =0			100	μA
I _{CEO}	Collector cut-off current	V _{CE} =80V, R _{BE} =∞			1.0	μA
h _{FE}	DC current gain	I _C =8A ; V _{CE} =3V	1000		20000	

Switching times

t _{on}	Turn-on time	I _C = 8 A, I _{B1} = -I _{B2} = 16mA		2.0		μs
t _{off}	Turn-off time			8.0		μs

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PACKAGE OUTLINE

