

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2SD1535

DESCRIPTION

- With TO-220Fa package
- Wide area of safe operation
- High breakdown voltage
- DARLINGTON

APPLICATIONS

- For high power amplification

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

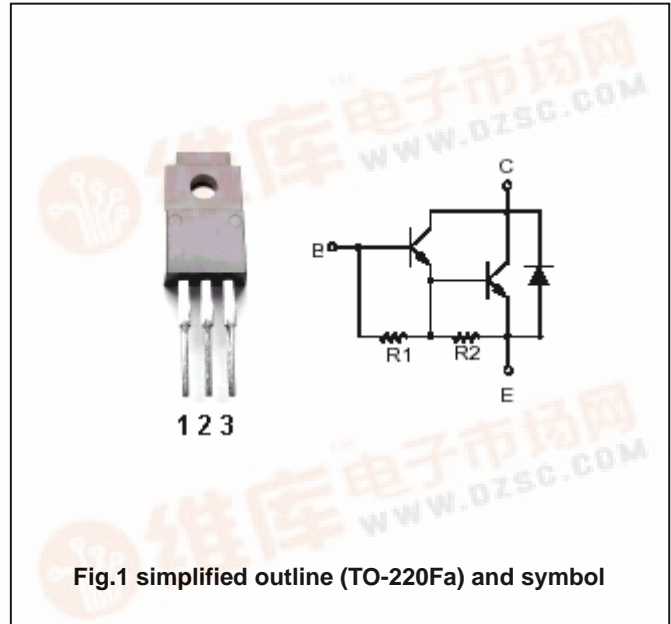


Fig.1 simplified outline (TO-220Fa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	500	V
V _{CEO}	Collector -emitter voltage	Open base	400	V
V _{EBO}	Emitter-base voltage	Open collector	12	V
I _C	Collector current		7	A
I _{CM}	Collector current-peak		14	A
I _B	Base current		0.5	A
P _C	Collector power dissipation	T _C =25°C	50	W
		T _a =25°C	2.0	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A; R _{BZ} =∞, L=25mH	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =7A; I _B =70mA			2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =7A; I _B =70mA			2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			0.1	mA
I _{CEO}	Collector cut-off current	V _{CE} =400V; I _B =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =12V; I _C =0			100	mA
h _{FE-1}	DC current gain	I _C =2A; V _{CE} =2V	500			
h _{FE-2}	DC current gain	I _C =6A; V _{CE} =2V	200			
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; I _{B1} =-I _{B2} =70mA V _{CC} =300V		1.5		μs
t _{stg}	Storage time			5.0		μs
t _f	Fall time			6.5		μs

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PACKAGE OUTLINE

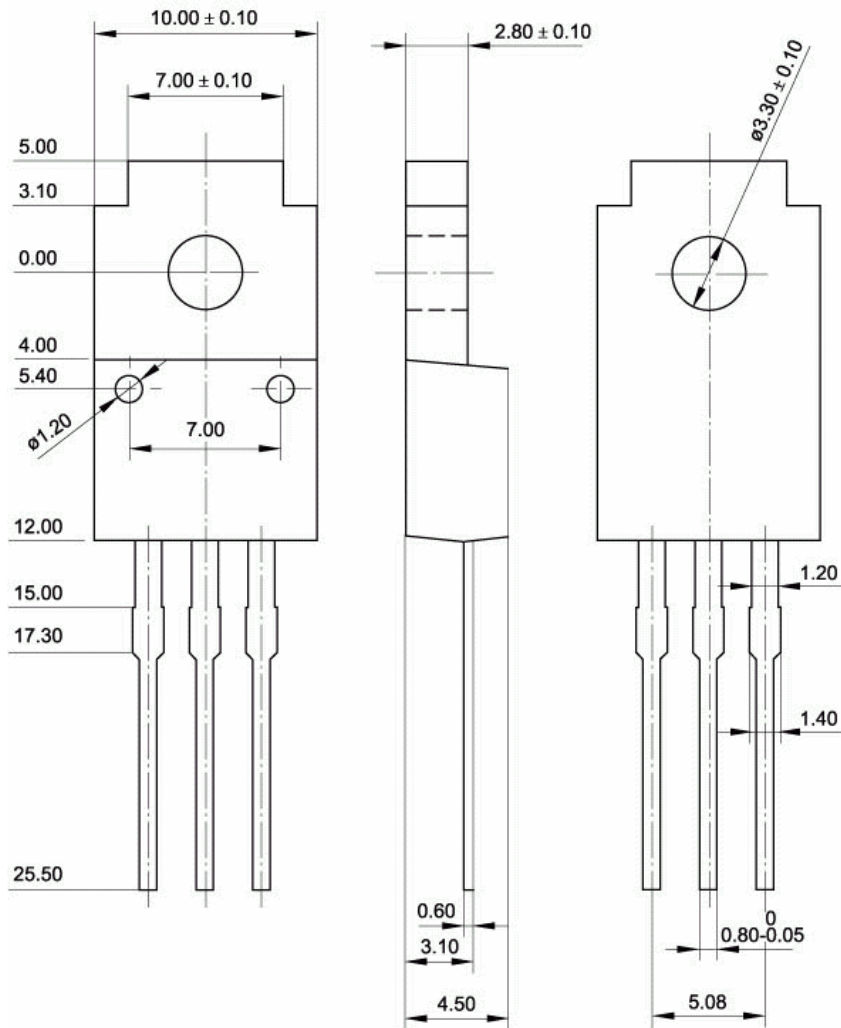


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)