

Silicon NPN Power Transistors

2SD1276 2SD1276A

DESCRIPTION

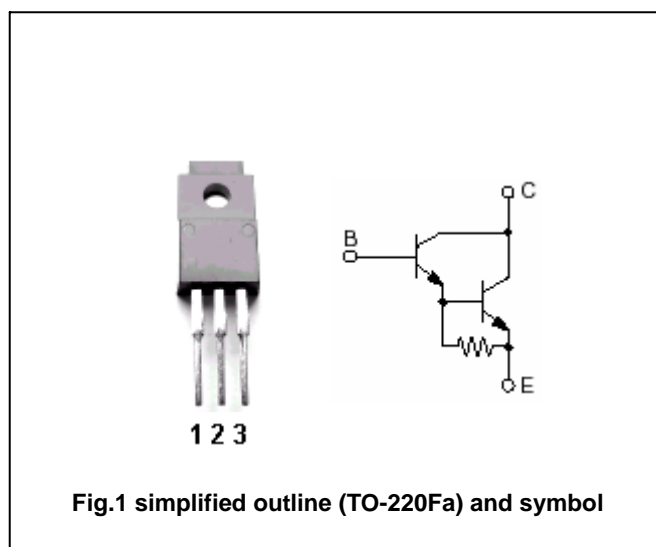
- With TO-220Fa package
- Complement to type 2SB950/950A
- High DC current gain
- High-speed switching

APPLICATIONS

- For 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	2SD1276	60	V
		2SD1276A	80	
V _{CEO}	Collector-emitter voltage	2SD1276	60	V
		2SD1276A	80	
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current (DC)		4	A
I _{CM}	Collector current-Peak		8	A
P _C	Collector power dissipation	T _C =25	40	W
		T _a =25	2	
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 _{(BR)CEO}	Collector-emitter breakdown voltage	2SD1276	I _C =30mA, I _B =0	60			V
		2SD1276A		80			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =3A; I _B =12mA			2	V
V _{CEsat}	Collector-emitter saturation voltage		I _C =5A; I _B =20mA			4	V
V _{BE}	Base-emitter voltage		V _{CE} =3V; I _C =3A			2.5	V
I _{CBO}	Collector cut-off current	2SD1276	V _{CB} =60V; I _E =0			0.2	mA
		2SD1276A	V _{CB} =80V; I _E =0				
I _{CEO}	Collector cut-off current	2SD1276	V _{CE} =30V; I _B =0			0.5	mA
		2SD1276A	V _{CE} =40V; I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =5V; I _C =0			2	mA
h _{FE-1}	DC current gain		I _C =3A; V _{CE} =0.5V	1000			
h _{FE-2}	DC current gain		I _C =3A; V _{CE} =3V	2000		10000	
f _T	Transition frequency		I _C =0.5A; V _{CE} =10V; f=1MHz		20		MHz

Switching times

t _{on}	Turn-on time	I _C =2A; I _{B1} =8mA I _{B2} =-8mA; V _{CC} =50V		0.5		μs
t _s	Storage time			4		μs
t _f	Fall time			1		μs

◆ h_{FE-2} Classifications

Q	R
2000-5000	4000-10000

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PACKAGE OUTLINE

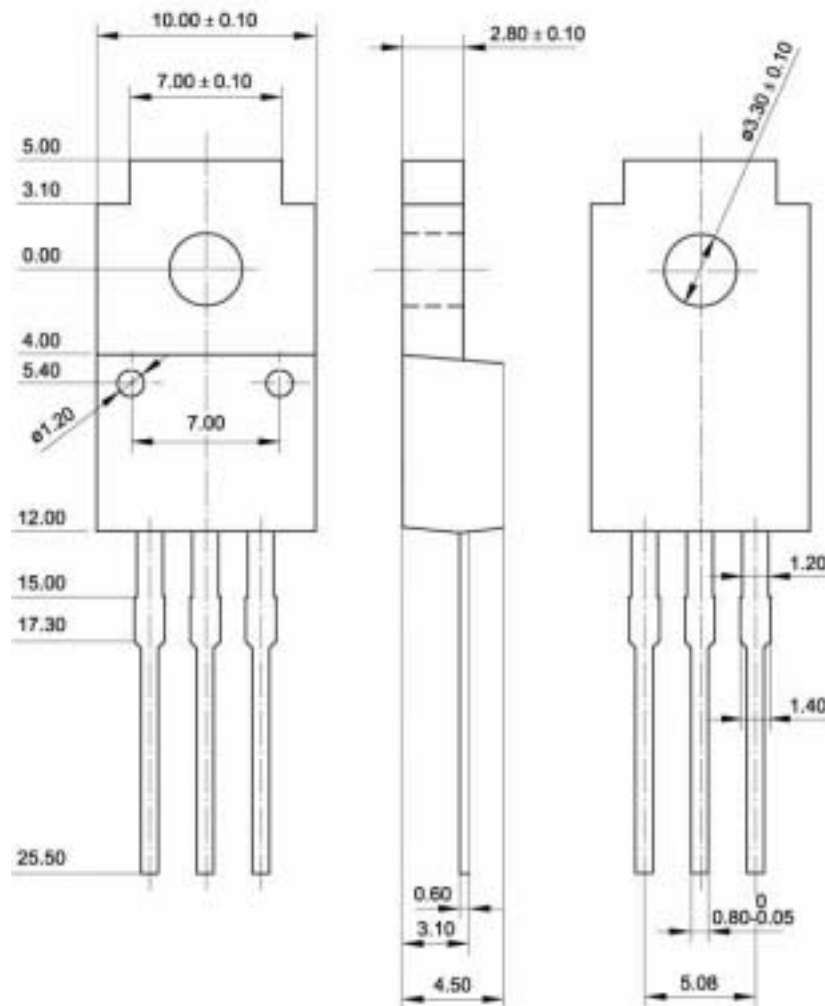


Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)