

Silicon PNP Power Transistors

2SB1021

DESCRIPTION

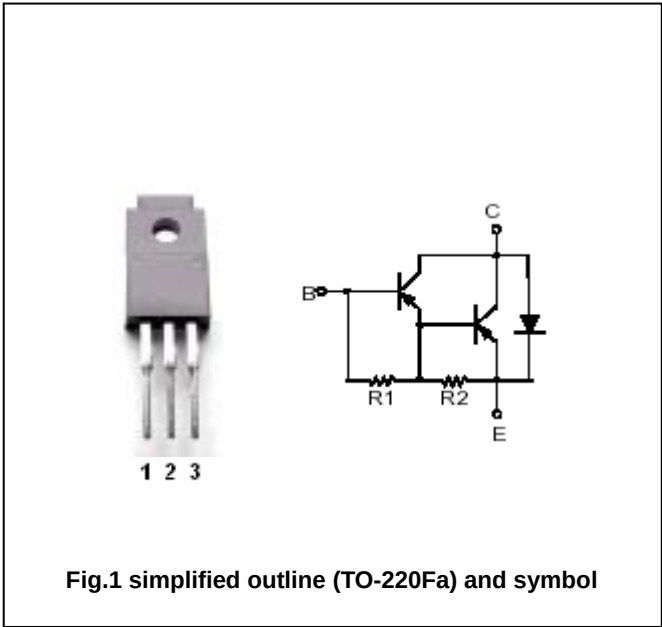
- With TO-220Fa package
- High DC current gain
- Low saturation voltage
- Complement to type 2SD1416

APPLICATIONS

- High power switching applications
- Hammer drive,pulse motor drive applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-80	V
V_{CEO}	Collector -emitter voltage	Open base	-80	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-7	A
I_B	Base current		-0.2	A
P_C	Collector power dissipation	$T_a=25^{\circ}\text{C}$	2.0	W
		$T_C=25^{\circ}\text{C}$	30	
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 _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-50mA; I _B =0	-80			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =-3A; I _B =-6mA			-1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =-7A; I _B =-14mA			-2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-3A; I _B =-6mA			-2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-80V; I _E =0			-100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-4.0	mA
h _{FE-1}	DC current gain	I _C =-3A; V _{CE} =-3V	2000		15000	
h _{FE-2}	DC current gain	I _C =-7A; V _{CE} =-3V	1000			

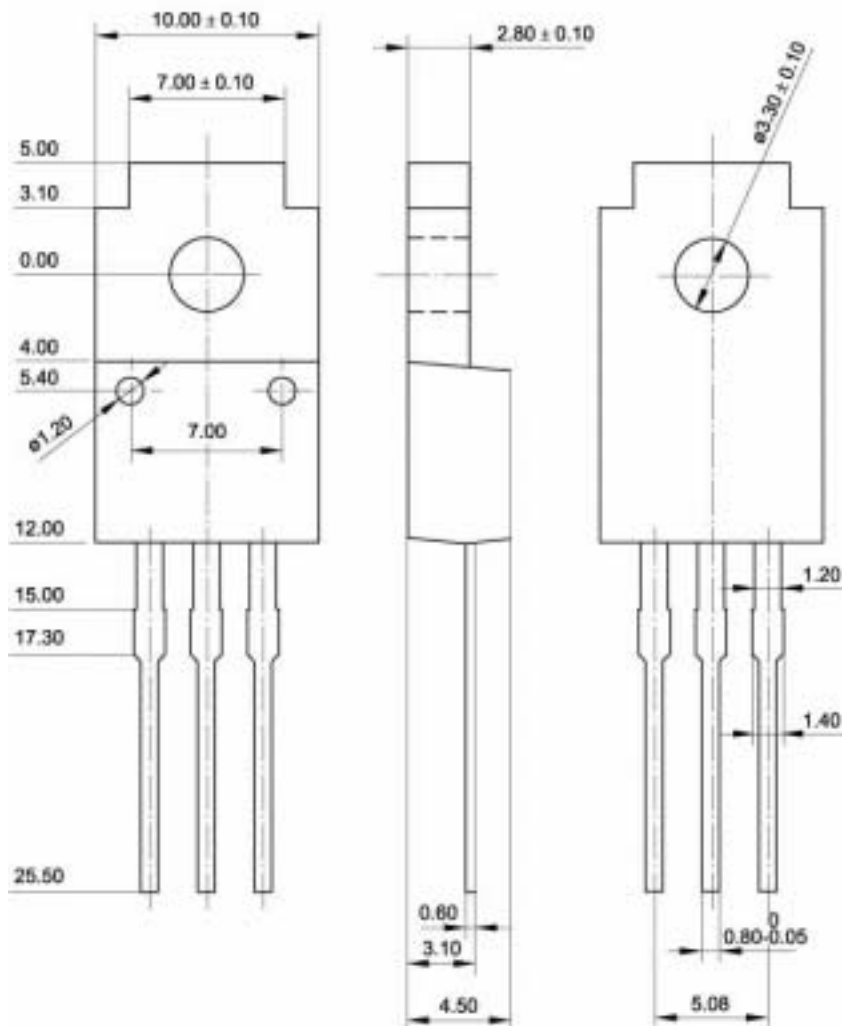
Switching times

t _{on}	Turn-on time	I _{B1} =-I _{B2} =-6mA; V _{CC} ≈-45V R _L =15Ω		0.8		μs
t _{stg}	Storage time			2.0		μs
t _f	Fall time			2.5		μs

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PACKAGE OUTLINE

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