

Silicon PNP Power Transistors

2SB921

DESCRIPTION

- With TO-220C package
- Complement to type 2SD1237
- Low collector saturation voltage
- Large current capacity

APPLICATIONS

- Suitable for relay drivers,high-speed inverters,converters,and other general large current switching applications

PINNING

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

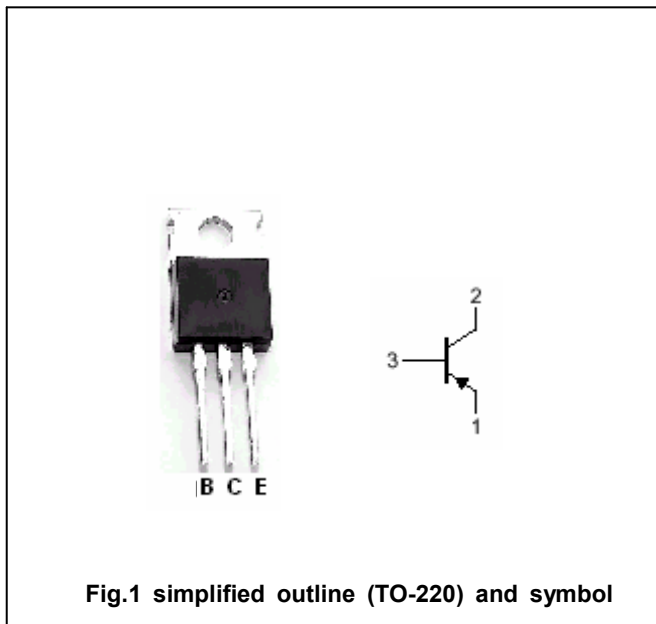


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	-120	V
V _{CEO}	Collector-emitter voltage	Open base	-120	V
V _{EBO}	Emitter-base voltage	Open collector	-6	V
I _C	Collector current (DC)		-7	A
I _{CM}	Collector current-Peak		-12	A
P _C	Collector dissipation	T _a =25°C	1.75	W
		T _C =25°C	40	
T _j	Junction temperature		150	°C
T _{stg}	Storage temperature		-50~150	°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 =-1mA; R _{BE} =∞	-120			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-1mA; I _E =0	-120			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-1mA; I _C =0	-6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A; I _B =-0.4A			-0.5	V
I _{CBO}	Collector cut-off current	V _{CB} =-80V; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-4V; I _C =0			-0.1	mA
h _{FE-1}	DC current gain	I _C =-1A ; V _{CE} =-2V	70		280	
h _{FE-2}	DC current gain	I _C =-4A ; V _{CE} =-2V	30			
f _T	Transition frequency	I _C =-1A ; V _{CE} =-5V		20		MHz

Switching times

t _{on}	Turn-on time	I _C =-2A ; V _{CC} =-50V I _{B1} =-I _{B2} =-0.2A; R _L =1.67Ω		0.2		μs
t _{stg}	Storage time			0.7		μs
t _f	Turn-off time			0.2		μs

◆ h_{FE-1} Classifications

Q	R	S
70-140	100-200	140-280

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PACKAGE OUTLINE



Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)