

Silicon PNP Power Transistors

2SA1291

DESCRIPTION

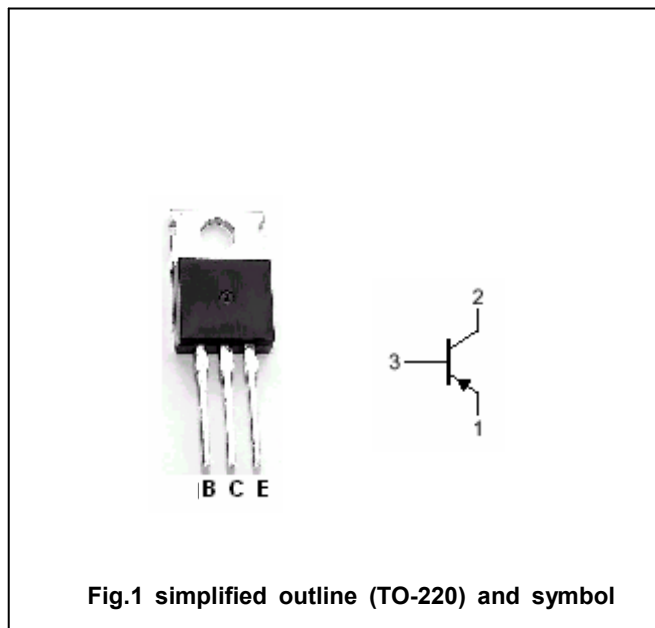
- With TO-220 package
- Low collector saturation voltage.
- Short switching time.
- Complement to type 2SC3255

APPLICATIONS

- Various inductance lamp drivers for electrical equipment.
- Inverters, converters
- Power amplifier
- High-speed switching

PINNING

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

ABSOLUTE MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-80	V
V_{CEO}	Collector-emitter voltage	Open base	-60	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-10	A
I_{CM}	Collector current-peak		-12	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	40	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 _{(BR)CBO}	Collector-base breakdown voltage	I _C =-1mA, I _E =0	-80			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-1mA, I _B =0	-60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-1mA, I _C =0	-5			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =-5A; I _B =-0.25A			-0.4	V
I _{CBO}	Collector cut-off current	V _{CB} =-40V; I _E =0			-100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-4V; I _C =0			-100	μA
h _{FE}	DC current gain	I _C =-1A; V _{CE} =-2V	70		280	
f _T	Transition frequency	I _C =-1A; V _{CE} =-5V		100		MHz

Switching times

t _{on}	Turn-on time	I _C =5A I _{B1} =- I _{B2} =0.25A V _{CC} =20V; R _L =6.67Ω		0.1		μs
t _s	Storage time			0.5		μs
t _f	Fall time			0.1		μs

h_{FE} Classifications

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

