

Silicon NPN Power Transistors

2SC3255

DESCRIPTION

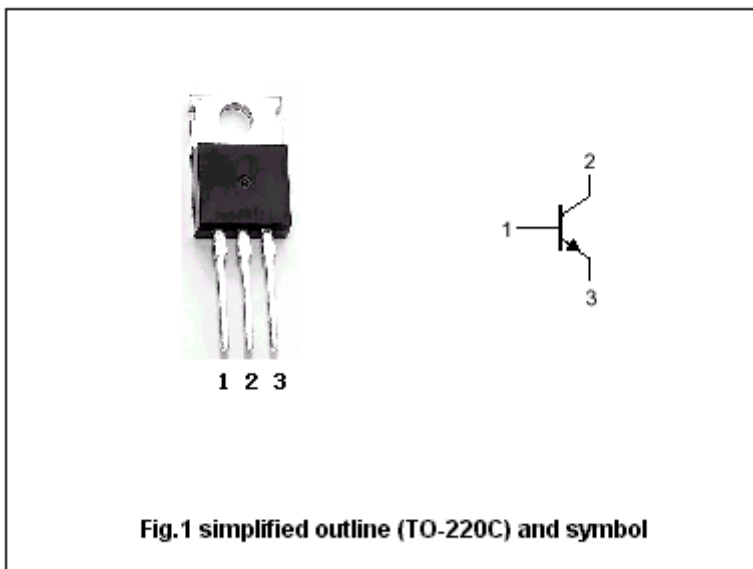
- With TO-220 package
- Complement to type 2SA1291
- Low collector saturation voltage
- High speed switching time

APPLICATIONS

- High current switching applications
- Power amplifications
- Inverters ,converters

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
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	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°C	40	W
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 _{(BR)CEO}	Collector -emitter breakdown voltage	I _C =1mA , I _B =∞	60			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA , I _E =0	80			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA , I _C =0	5			V
V _{CEsat}	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	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			100	μ A
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 =5.0A I _{B1} =- I _{B2} =0.25A R _L =6.67 Ω ; V _{CC} ≈20V		0.1		μ s
t _s	Storage time			0.5		μ s
t _f	Fall time			0.1		μ s

◆ h_{FE} Classifications

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

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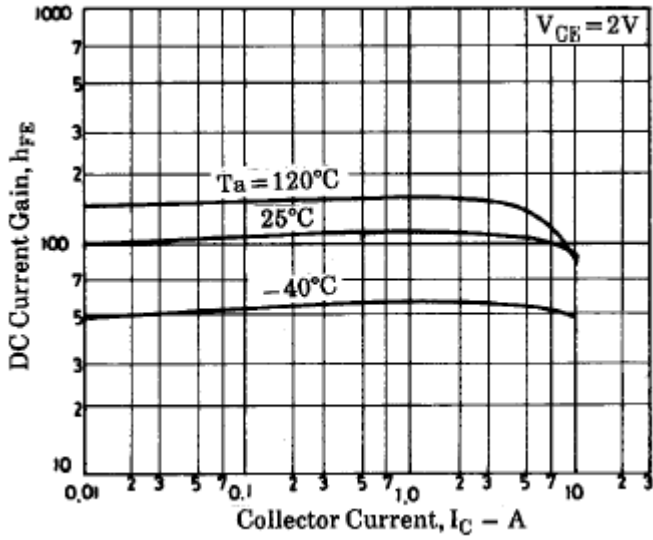


Fig.3 DC current Gain

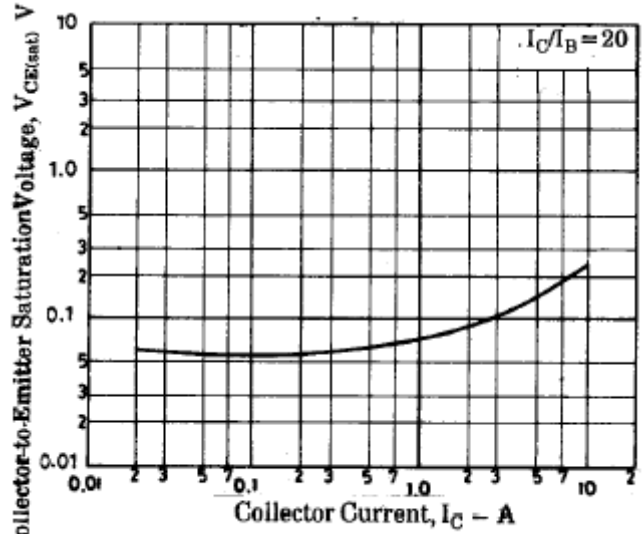


Fig.4 Collector-Emitter Saturation Voltage

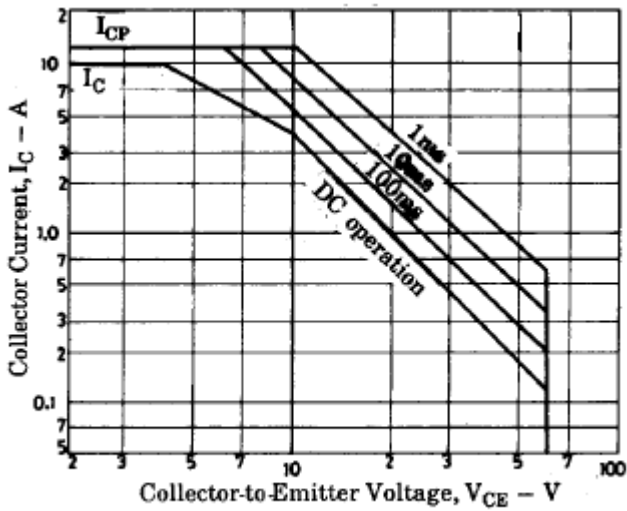


Fig.5 Safe Operating Area