

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2SC3253

DESCRIPTION

- With TO-220 package
- Short switching time
- Low collector saturation voltage
- Complement to type 2SA1289

APPLICATIONS

- Various inductance lamp drivers for electrical equipment
- Inverters,converters
- Power amplifier
- Switching regulator ,driver

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 _{EB0}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		5	A
I _{CM}	Collector current-peak		7	A
P _C	Collector power dissipation	T _C =25°C	30	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, R _{BE} =∞	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 =2.5A; I _B =0.125A			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

◆ h_{FE} Classifications

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

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PACKAGE OUTLINE

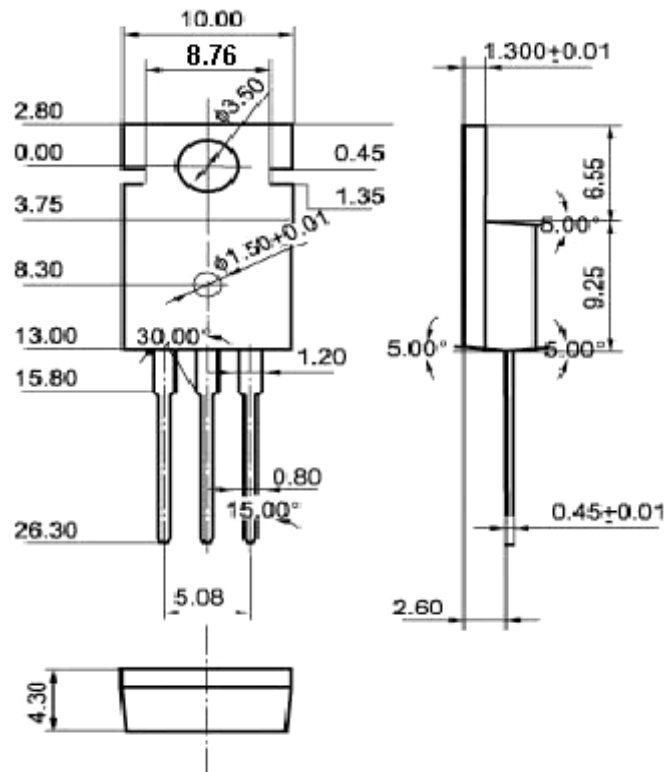


Fig.2 Outline dimensions(unindicated tolerance: ± 0.10 mm)

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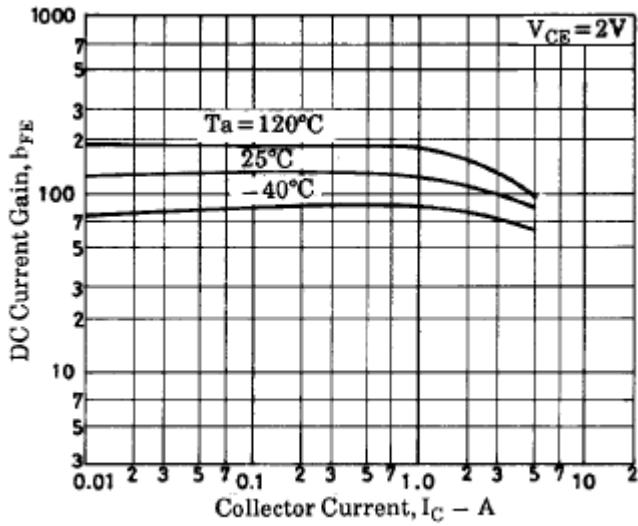


Fig.3 DC current Gain

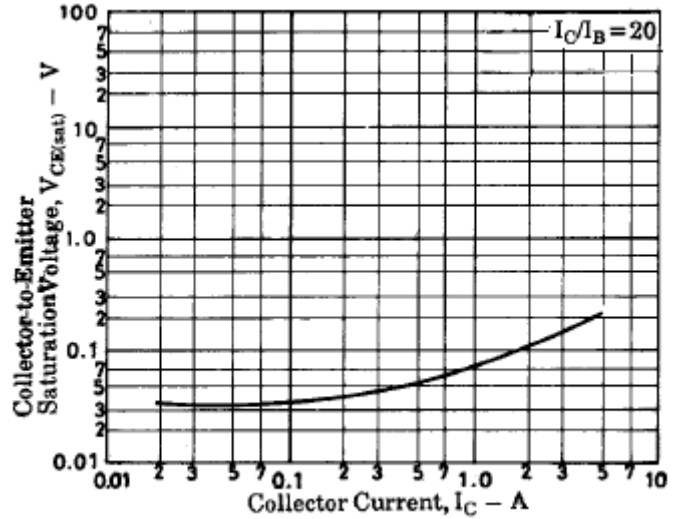


Fig.5 Collector-Emitter Saturation Voltage

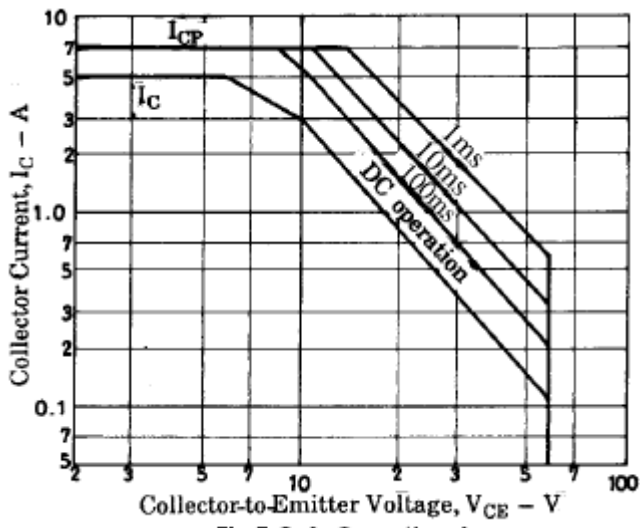


Fig.5 Safe Operating Area