

Silicon NPN Power Transistors

2SC3855

DESCRIPTION

- With TO-3PN package
- Complement to type 2SA1491

APPLICATIONS

- Audio and general purpose

PINNING

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

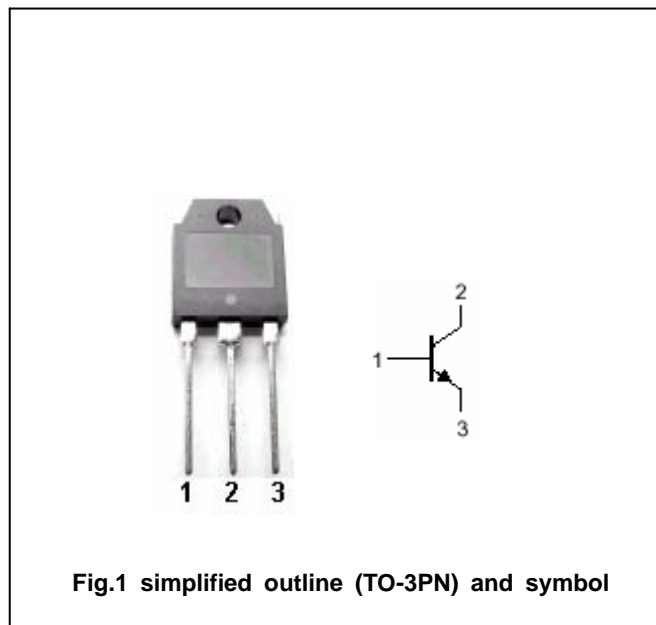


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	200	V
V_{CEO}	Collector-emitter voltage	Open base	140	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		10	A
I_B	Base current		4	A
P_C	Collector power dissipation	$T_C=25$	100	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; I _B =0	140			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A; I _B =0.5A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =200V; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =3A ; V _{CE} =4V	50			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =12V		20		MHz

Switching times

t _{on}	Turn-on time	I _C =5A; R _L =12 I _{B1} =- I _{B2} =0.5A V _{CC} =60V		0.30		μ s
t _s	Storage time			2.40		μ s
t _f	Fall time			0.40		μ s

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PACKAGE OUTLINE

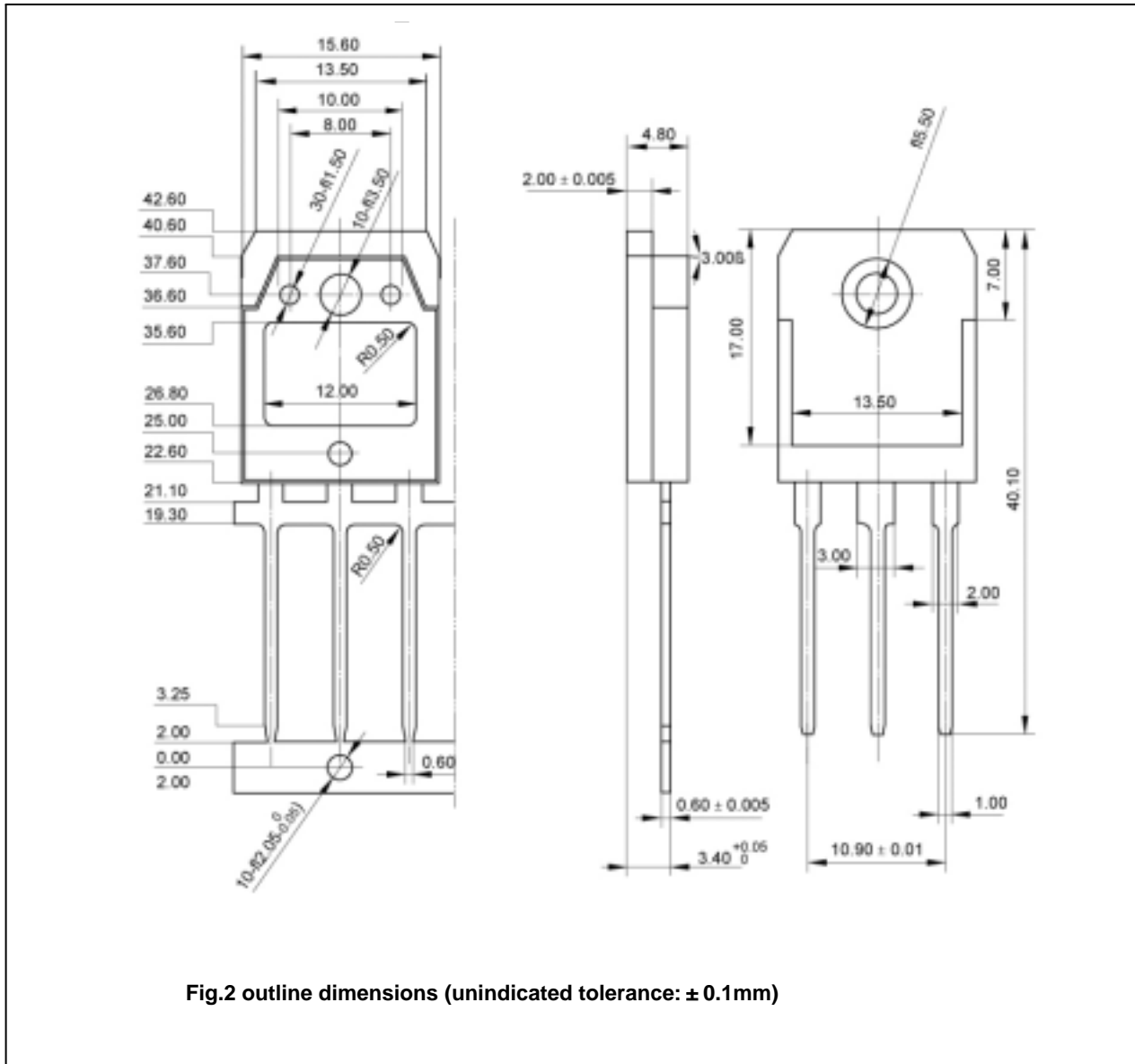


Fig.2 outline dimensions (unindicated tolerance: ± 0.1mm)

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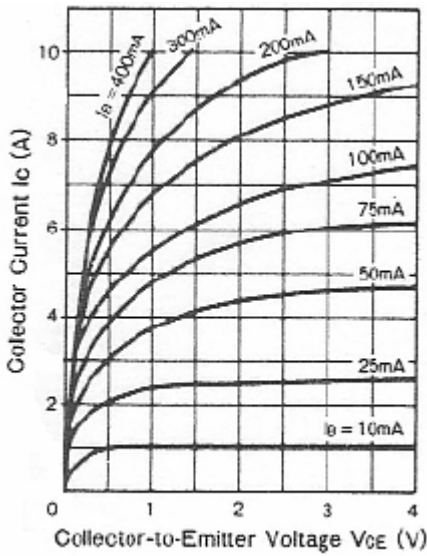


Fig.3 Static Characteristic

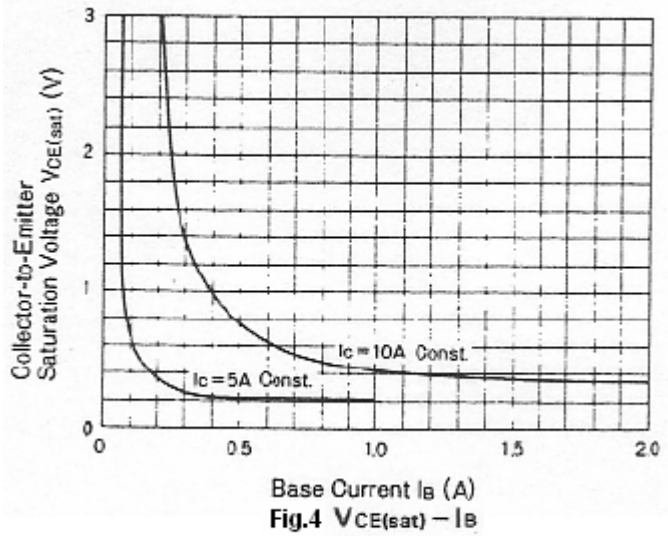


Fig.4 $V_{CE(sat)} - I_B$

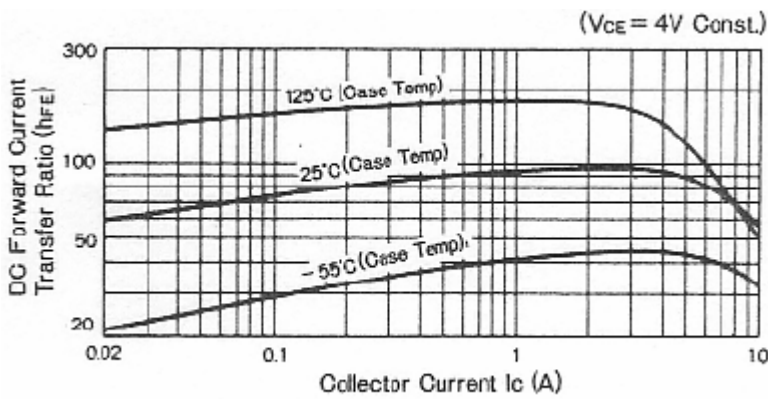


Fig.5 DC current Gain

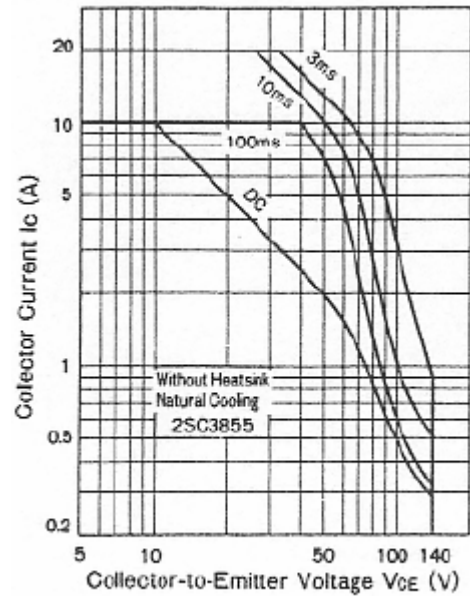


Fig.6 Safe Operating Area