

Silicon NPN Power Transistors

2SC4111

DESCRIPTION

- With TO-3PL package
- High voltage ,high speed
- Wide area of safe operation

APPLICATIONS

- For horizontal deflection output application

PINNING

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

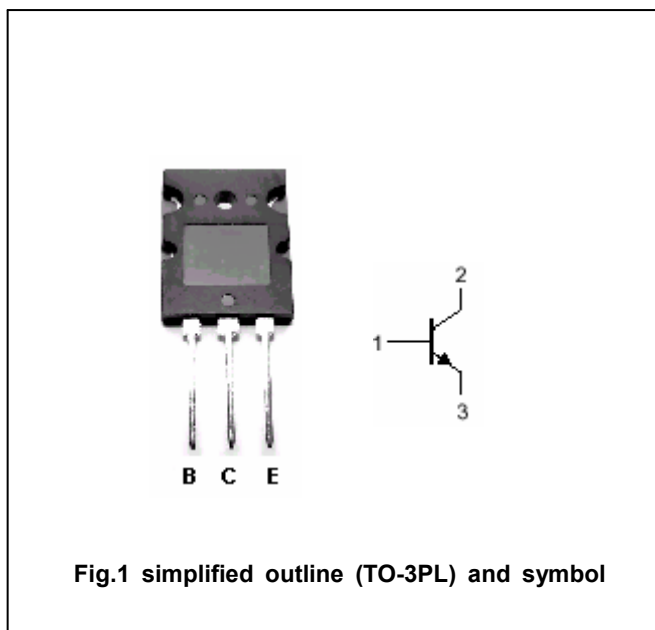


Fig.1 simplified outline (TO-3PL) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{CEO}	Collector-emitter voltage	Open base	700	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		10	A
I _{CM}	Collector current-peak		22	A
I _B	Base current		3.5	A
P _C	Collector power dissipation	T _a =25°C	3.5	W
		T _C =25°C	150	
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)EBO}	Eemitter-base breakdown voltage	I _E =1mA ; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =7A ; I _B =2.5A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =7A ; I _B =2.5A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =750V; I _E =0			10	μA
		V _{CB} =1500V; I _E =0			1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	5			
h _{FE-2}	DC current gain	I _C =7A ; V _{CE} =5V	3		8	
f _T	Transition frequency	I _C =1A ; V _{CE} =10V; f=0.5MHz		2		MHz

Switching times

t _s	Storage time	I _C =6A ; I _{B1} =-I _{B2} =1.7A L _{Leak} =5μH			12	μs
t _f	Fall time				0.6	μs

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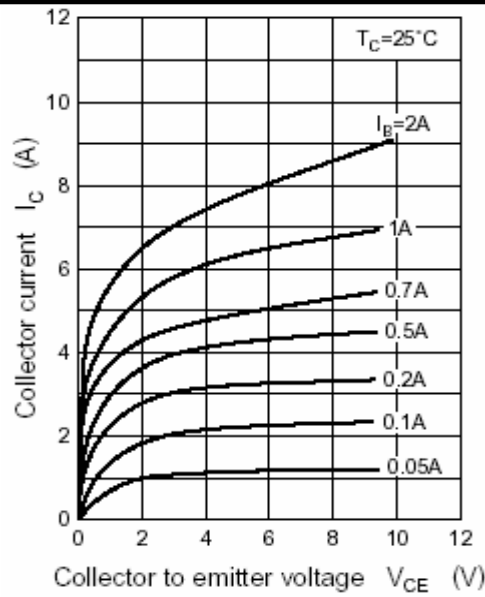


Fig.3 Static Characteristic

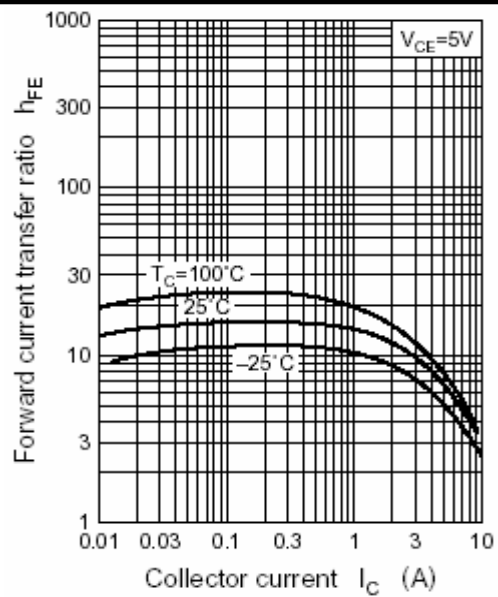


Fig.4 DC current Gain

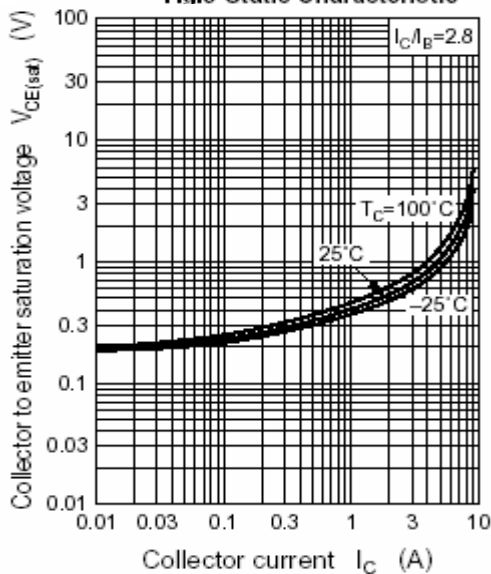


Fig.5 Collector-Emitter Saturation Voltage

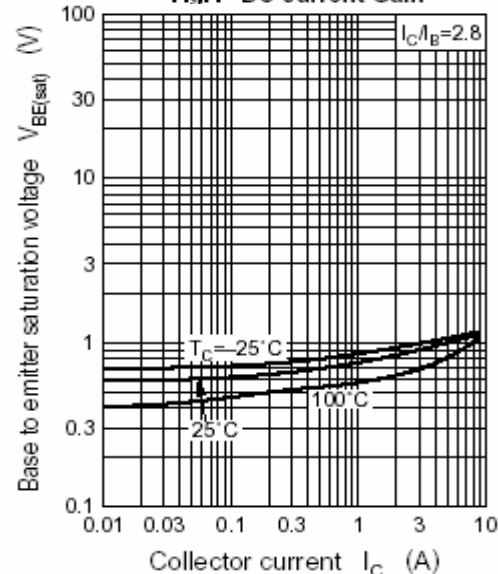


Fig.6 Base-Emitter Saturation Voltage

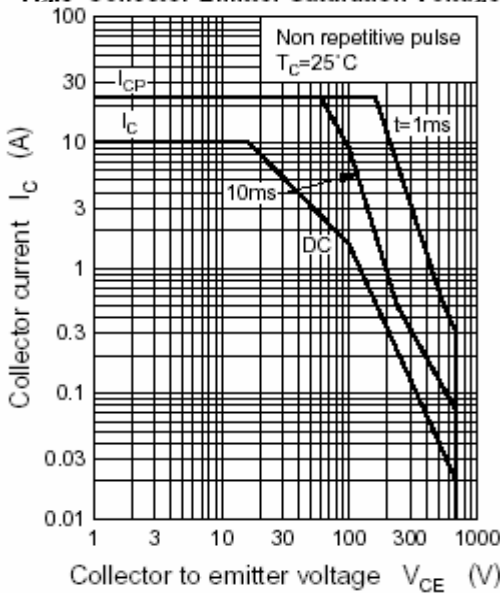


Fig.7 Safe Operating Area