

Silicon NPN Power Transistors

2SD1088

DESCRIPTION

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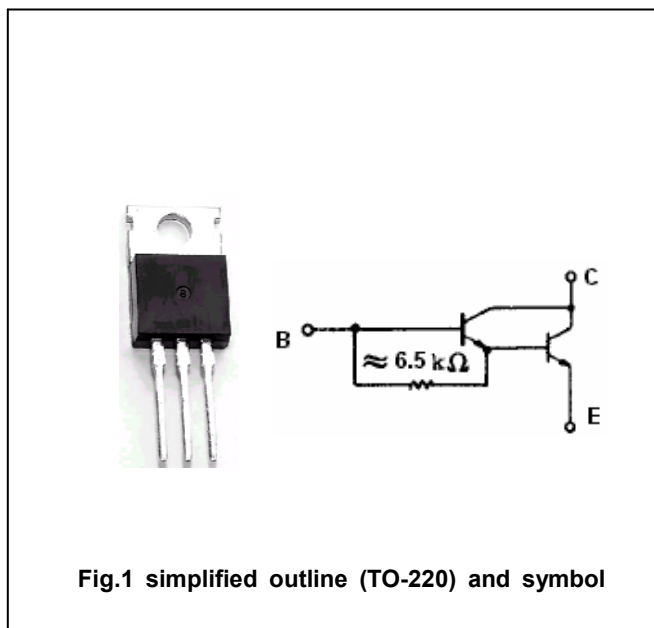
- With TO-220 package
- High DC current gain
- DARLINGTON

APPLICATIONS

- For switching igniter applications

PINNING

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

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	300	V
V_{CEO}	Collector-emitter voltage	Open base	250	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current-continuous		6	A
I_{CM}	Collector current-peak		10	A
I_B	Base current		1	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	30	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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.5A ; L=40mH	250			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A ; I _B =0.04A			2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A ; I _B =0.04A			2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =300V ; I _E =0			0.5	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			0.5	mA
h _{FE-1}	DC current gain	I _C =2A ; V _{CE} =2V	2000			
h _{FE-2}	DC current gain	I _C =4A ; V _{CE} =2V	200			
C _{OB}	Collector output capacitance	f=1MHz ; V _{CB} =50V		35		pF

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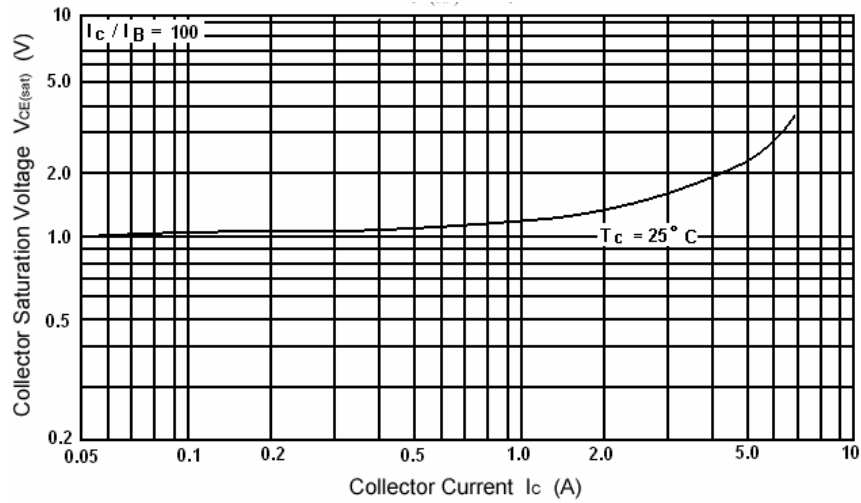


Fig.3 Collector-Emitter Saturation Voltage

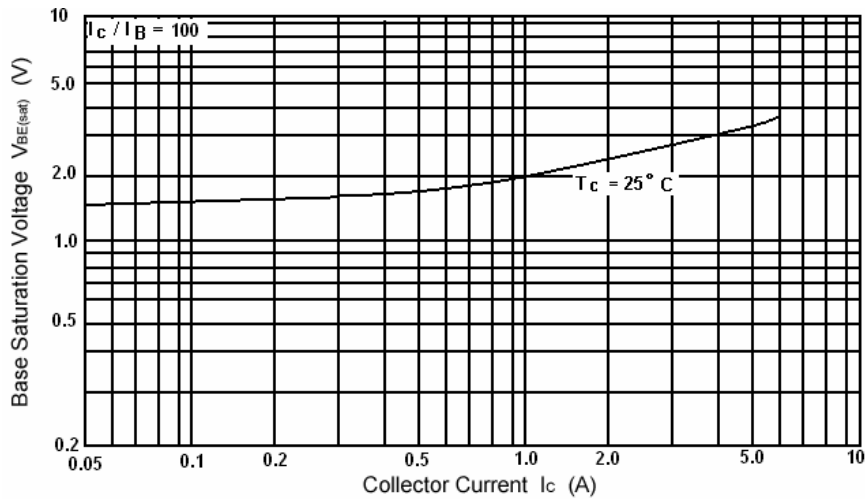


Fig.4 Base-Emitter Saturation Voltage

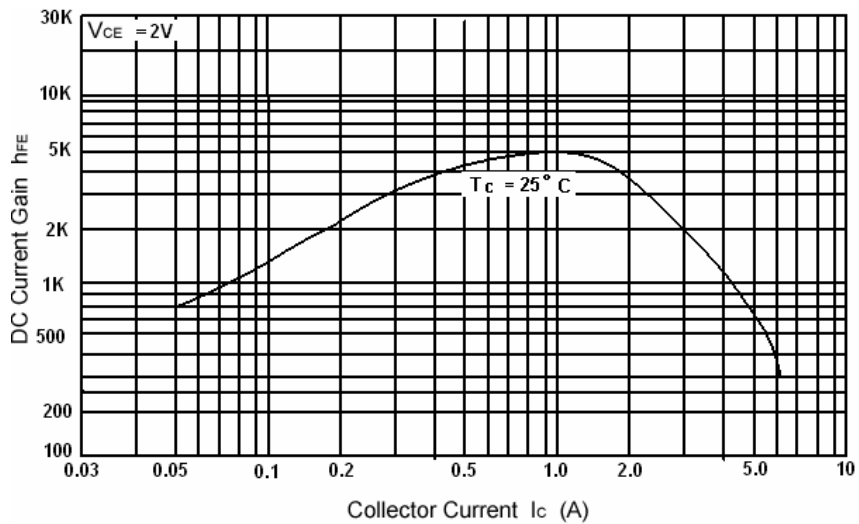


Fig.5 DC current Gain

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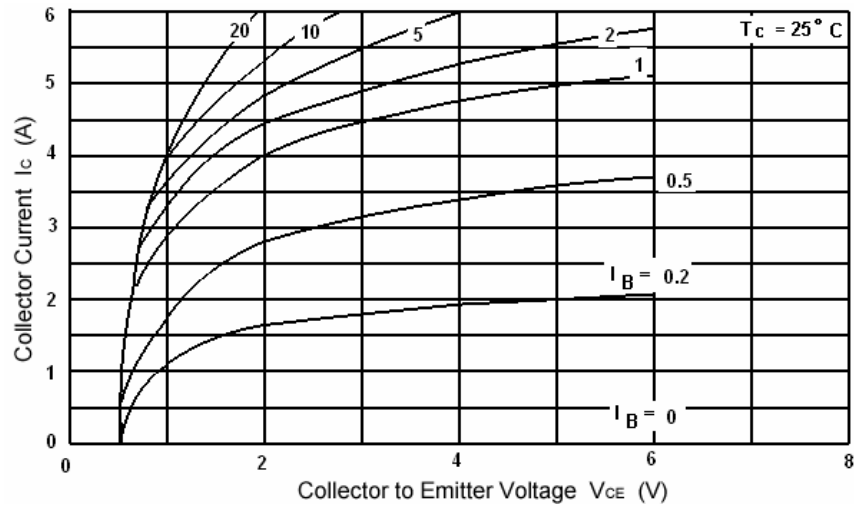


Fig.6 Static Characteristic

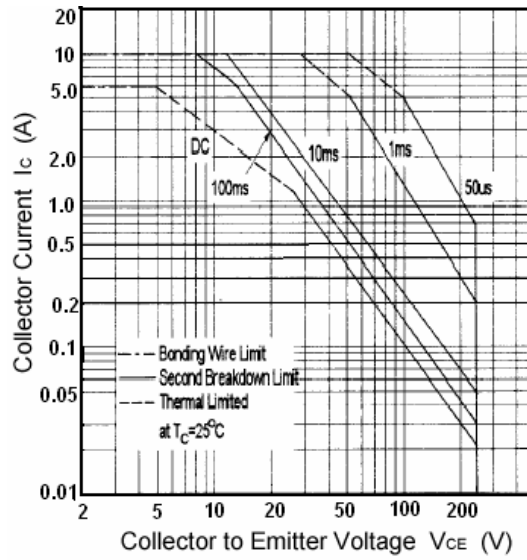


Fig.7 Safe Operating Area