

Silicon NPN Power Transistors

2SD1135

DESCRIPTION

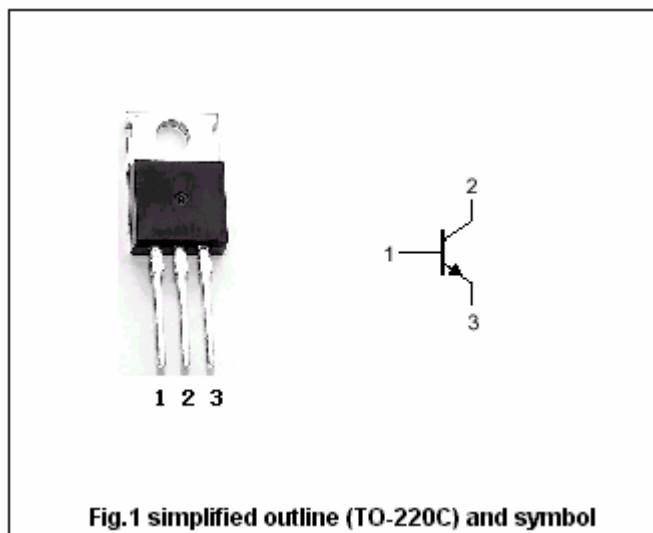
- With TO-220C package
- Complement to type 2SB859

APPLICATIONS

- For low frequency power amplifier applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		4	A
I_{CM}	Collector current-peak		8	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-45~150	$^\circ\text{C}$

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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 =50mA; R _{BE} =∞	80			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2 A; I _B =0.2 A			2.0	V
V _{BE}	Base-emitter voltage	I _C =1A ; V _{CE} =5V			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =80V; I _E =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	60		200	
h _{FE-2}	DC current gain	I _C =0.1A ; V _{CE} =5V	35			
C _{ob}	Collector output capacitance	I _C =0; V _{CB} =20V; f=1MHz		40		pF
f _T	Transition frequency	I _C =0.5A ; V _{CE} =5V		10		MHz

◆ h_{FE-1} classifications

B	C
60-120	100-200

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PACKAGE OUTLINE



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

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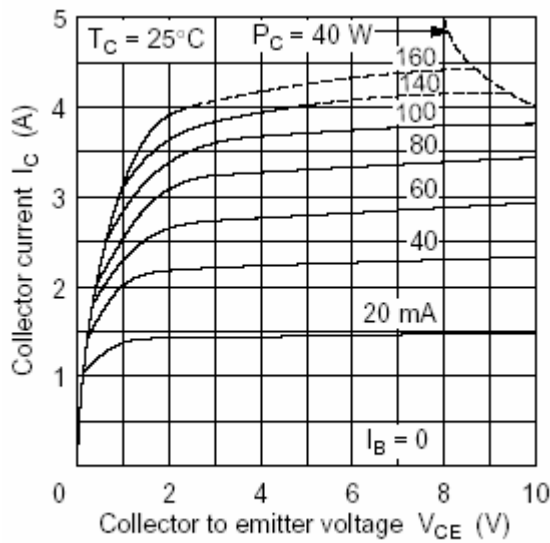


Fig.3 Static Characteristic

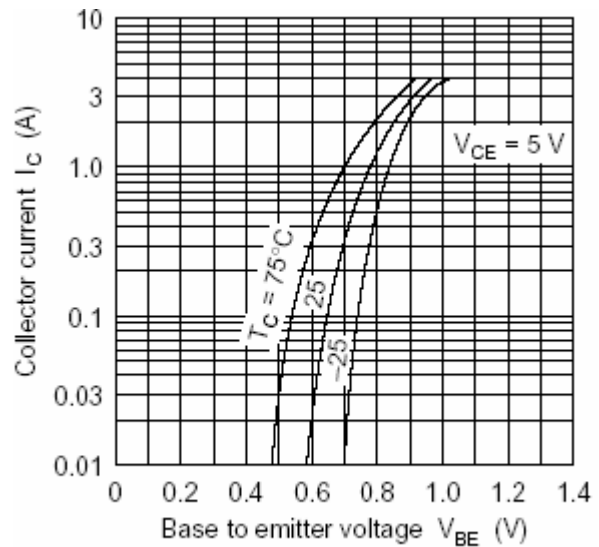


Fig.4 Base-Emitter On Voltage

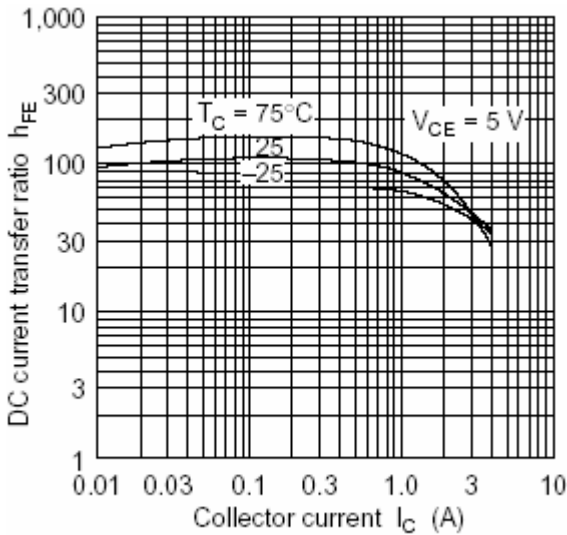


Fig.5 DC current Gain

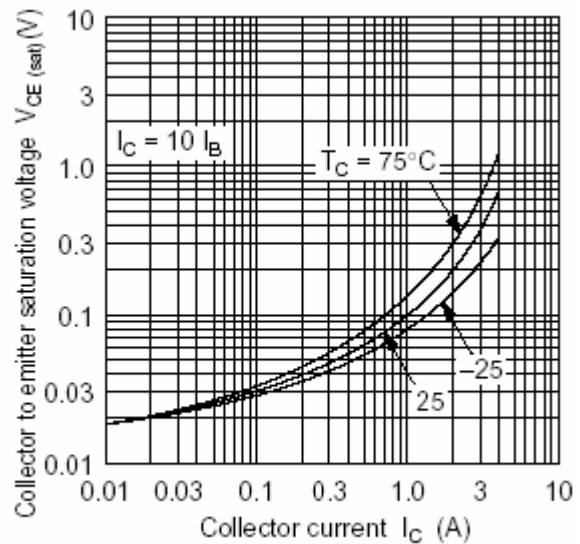


Fig.6 Collector-Emitter Saturation Voltage

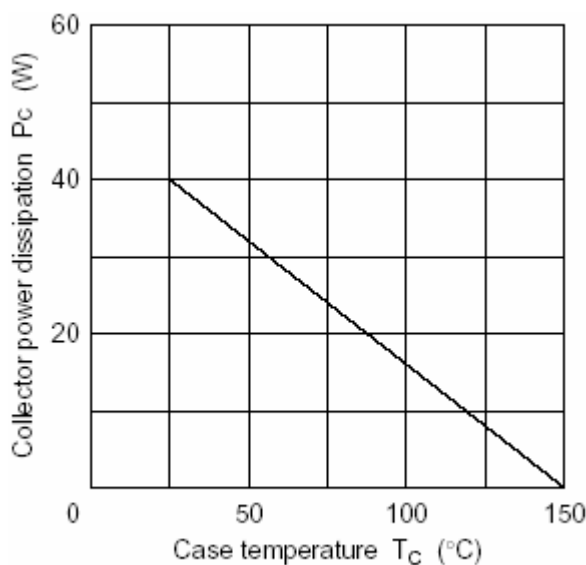


Fig.7 Power Derating

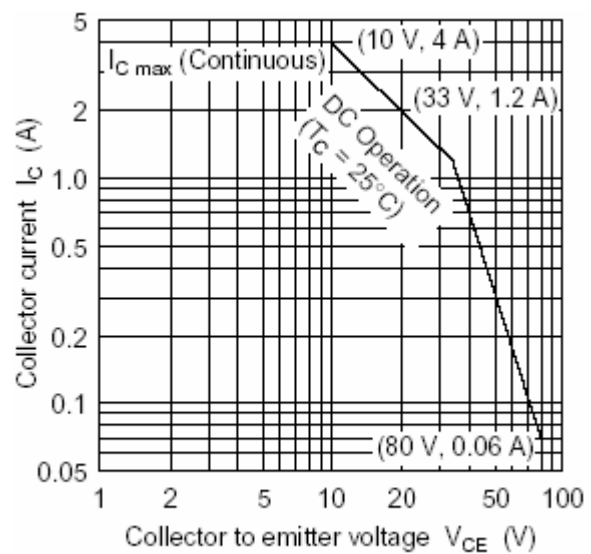


Fig.8 Safe Operating Area