

## Silicon NPN Power Transistors

2SD1137

## DESCRIPTION

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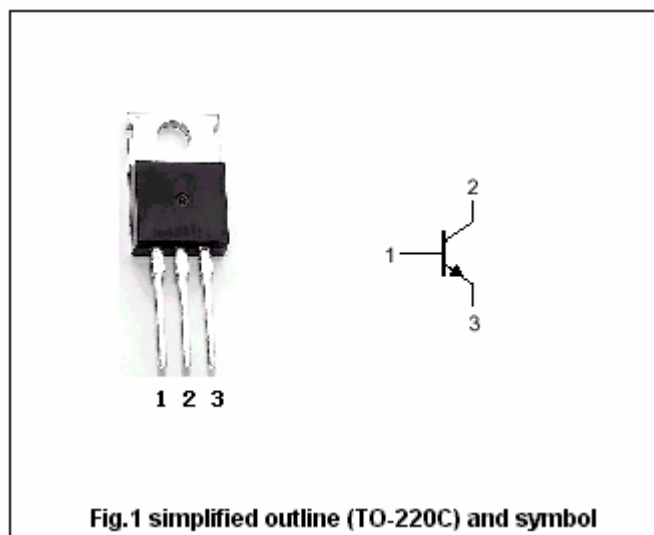
- With TO-220C package
- Complement to type 2SB860

## APPLICATIONS

- Low frequency power amplifier TV vertical deflection output applications

## PINNING

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

Absolute maximum ratings( $T_a=25^\circ$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	100	V
$V_{CEO}$	Collector-emitter voltage	Open base	100	V
$V_{EBO}$	Emitter-base voltage	Open collector	4	V
$I_C$	Collector current		4	A
$I_{CP}$	Collector current-Peak		5	A
$P_C$	Collector power dissipation	$T_a=25^\circ$	1.8	W
		$T_C=25^\circ$	40	
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-45~150	$^\circ$

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## CHARACTERISTICS

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 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50\text{mA}; R_{BE}=\infty$	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}; I_C=0$	4			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=1\text{A}; I_B=0.1\text{A}$			1.0	V
$I_{CEO}$	Collector cut-off current	$V_{CE}=80\text{V}; R_{BE}=\infty$			100	$\mu\text{A}$
$I_{EBO}$	Collector cut-off current	$V_{EB}=3.5\text{V}; I_C=0$			50	$\mu\text{A}$
$h_{FE-1}$	DC current gain	$I_C=0.5\text{A}; V_{CE}=4\text{V}$	50		250	
$h_{FE-2}$	DC current gain	$I_C=50\text{mA}; V_{CE}=4\text{V}$	25		350	

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PACKAGE OUTLINE

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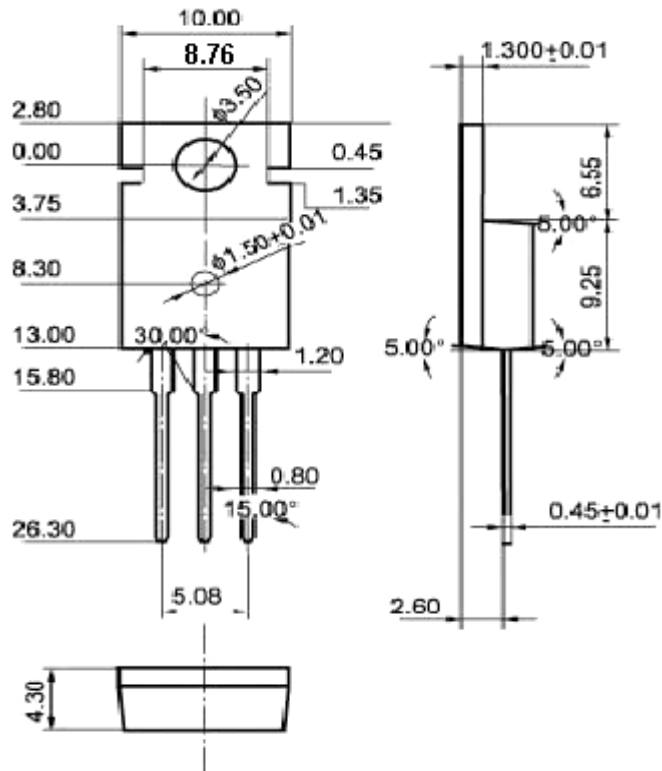


Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

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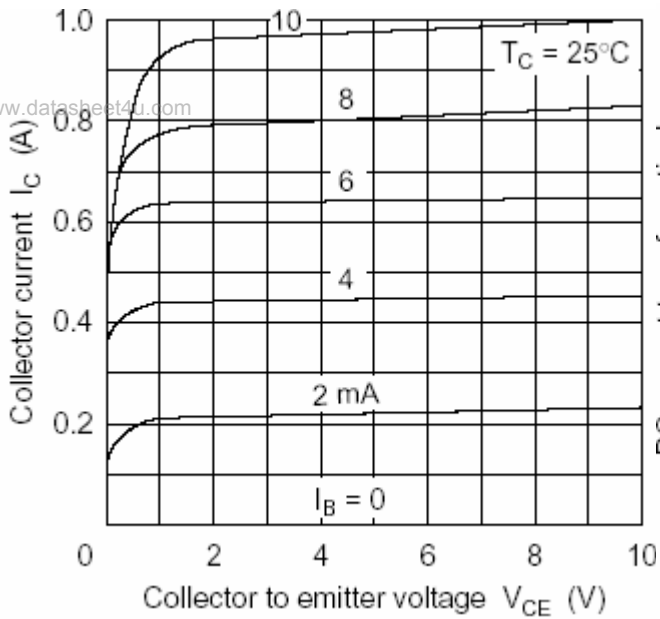


Fig.3 Static Characteristic

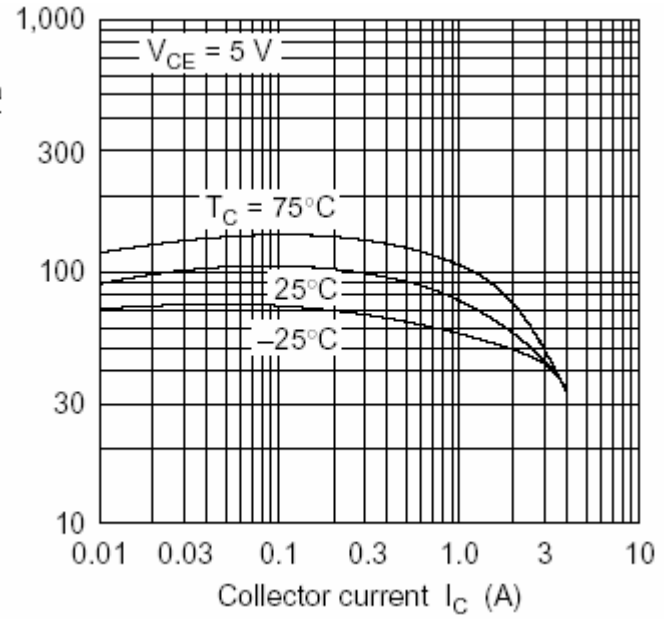


Fig.4 DC current Gain

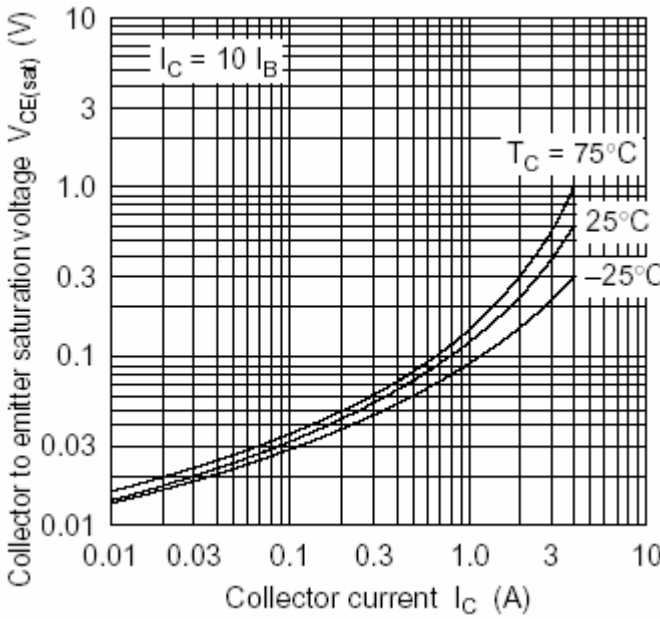


Fig.5 Collector-Emitter Saturation Voltage

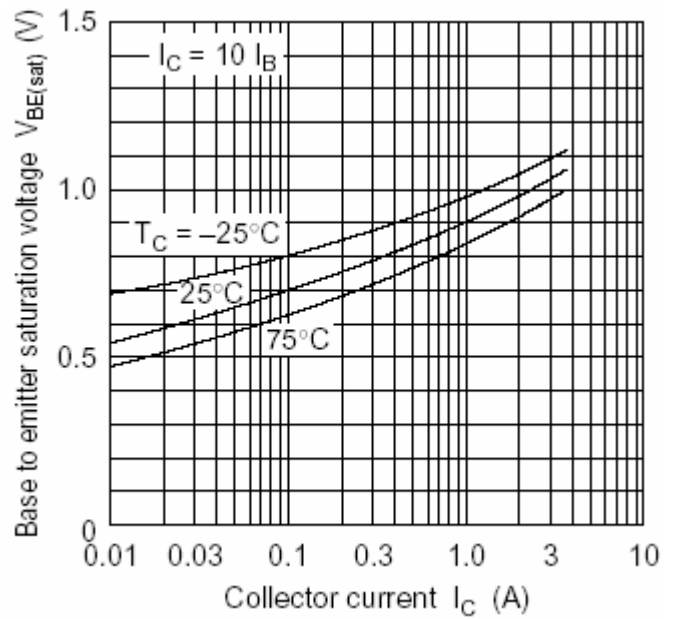


Fig.6 Base-Emitter Saturation Voltage

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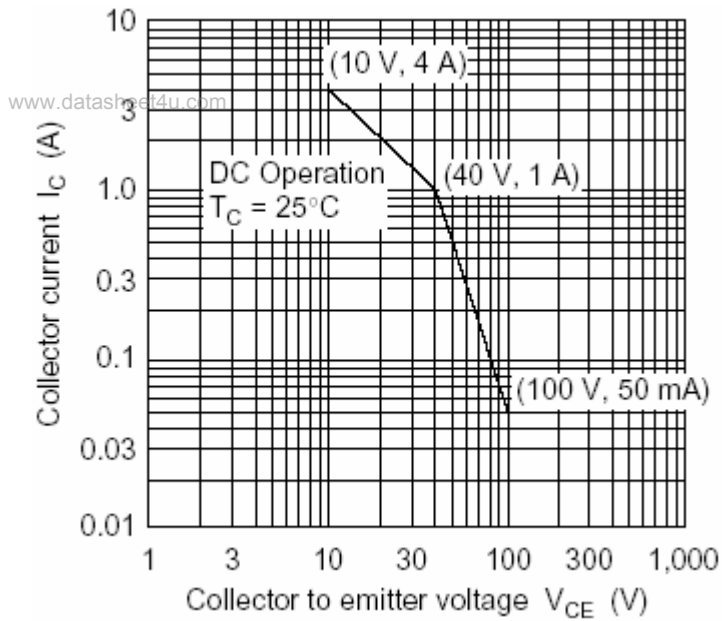


Fig.7 Safe Operating Area