

## Silicon NPN Power Transistors

2SC1061

## DESCRIPTION

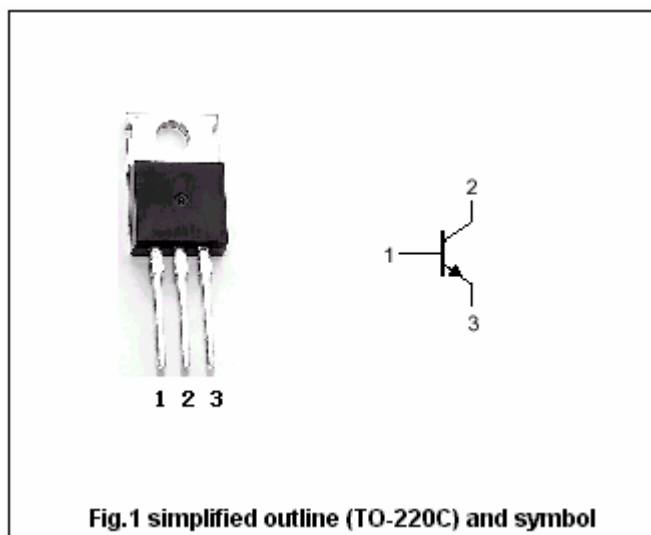
- With TO-220 package
- Low saturation voltage
- Complement to type 2SA671
- Note: type 2SC1060 with short pin

## APPLICATIONS

- For use in low frequency power amplifier applications

## PINNING

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



## Absolute maximum ratings (Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	50	V
$V_{CEO}$	Collector-emitter voltage	Open base	50	V
$V_{EBO}$	Emitter-base voltage	Open collector	4	V
$I_C$	Collector current (DC)		3	A
$I_{CM}$	Collector current-peak		8	A
$I_B$	Base current (DC)		0.5	A
$P_C$	Collector power dissipation	$T_C=25$	25	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-a}$	Thermal resistance from junction to case	5.0	/W

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =0	50			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =5mA ; I <sub>E</sub> =0	50			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =5mA ; I <sub>C</sub> =0	4			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2A ; I <sub>B</sub> =0.2A			1.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =1A ; V <sub>CE</sub> =4V			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =25V ; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V ; I <sub>C</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =4V	35			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =4V	35		320	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =4V	5.0			MHz

◆ h<sub>FE-2</sub> classifications

A	B	C	D
35-70	60-120	100-200	160-320

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PACKAGE OUTLINE

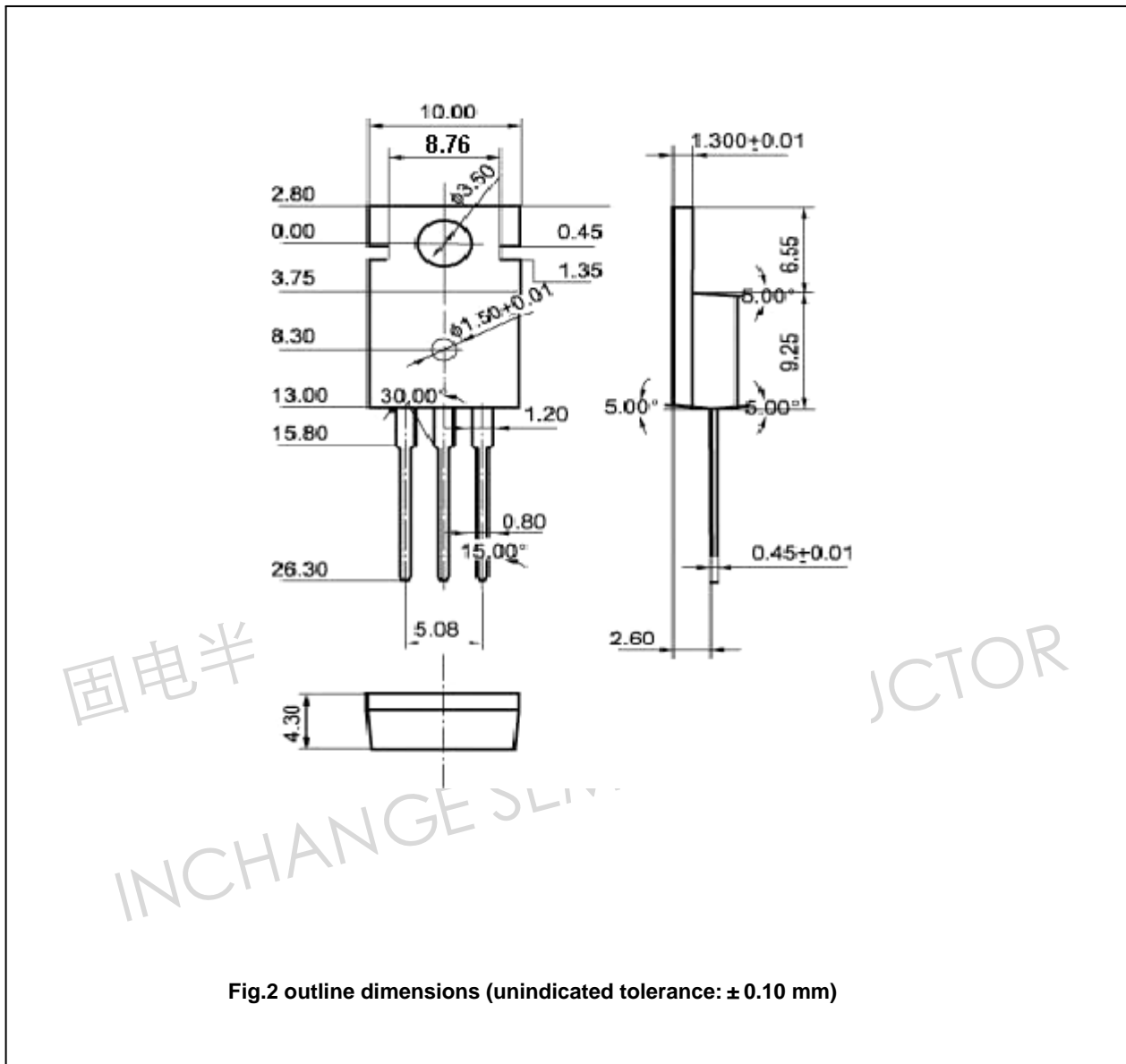


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)

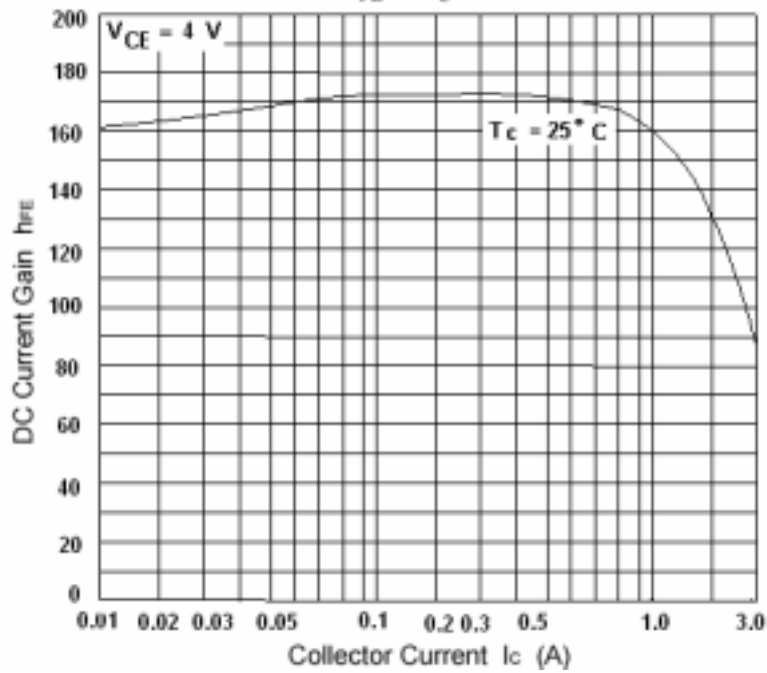


Fig.3 DC current Gain

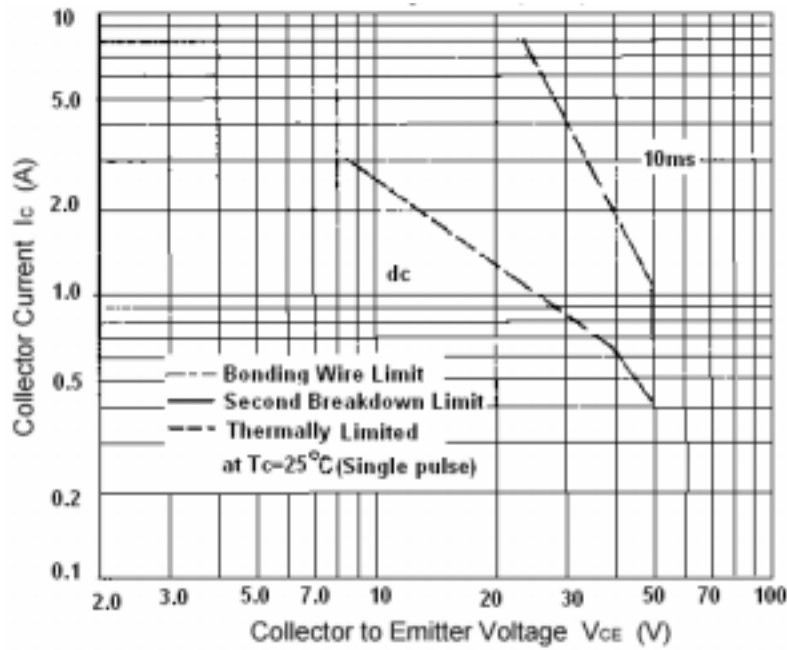


Fig.4 Safe Operating Area