

Silicon NPN Power Transistors

2SC1061

DESCRIPTION

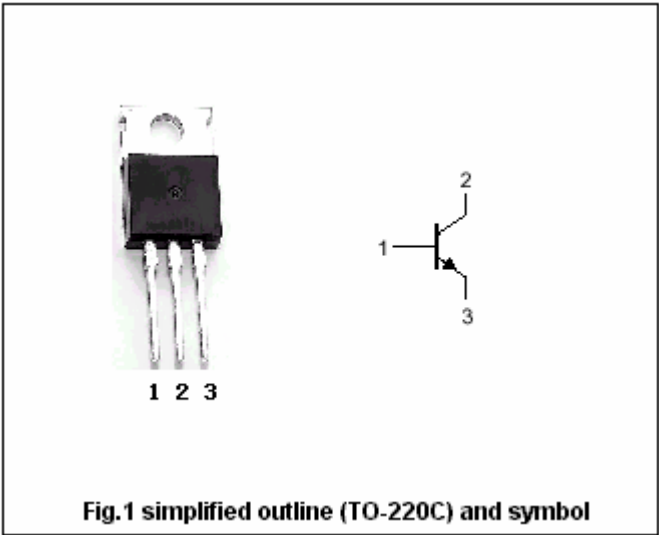
- With TO-220 package
- Low saturation voltage
- Complement to type 2SA671
- Note: type 2SC1060 with short pin

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°C)

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	$T_C=25^{\circ}C$	25	W
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50mA ; I_B=0$	50			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=5mA ; I_E=0$	50			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=5mA ; I_C=0$	4			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2A ; I_B=0.2A$			1.0	V
V_{BE}	Base-emitter on voltage	$I_C=1A ; V_{CE}=4V$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=25V ; I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V ; I_C=0$			0.1	mA
h_{FE-1}	DC current gain	$I_C=0.1A ; V_{CE}=4V$	35			
h_{FE-2}	DC current gain	$I_C=1A ; V_{CE}=4V$	35		320	
f_T	Transition frequency	$I_C=0.5A ; V_{CE}=4V$	5.0			MHz

◆ h_{FE-2} classifications

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

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PACKAGE OUTLINE

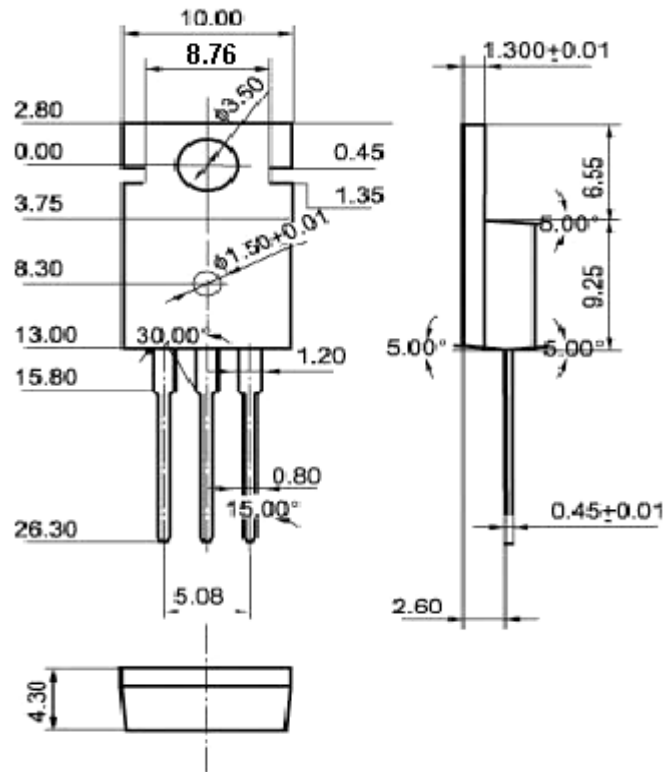


Fig.2 outline dimensions (unindicated tolerance: ±0.10 mm)

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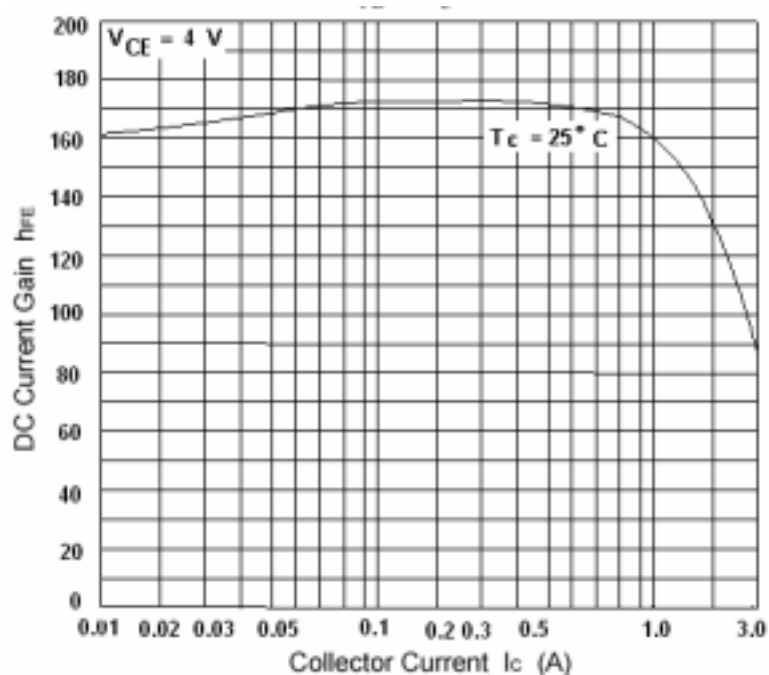


Fig.3 DC current Gain

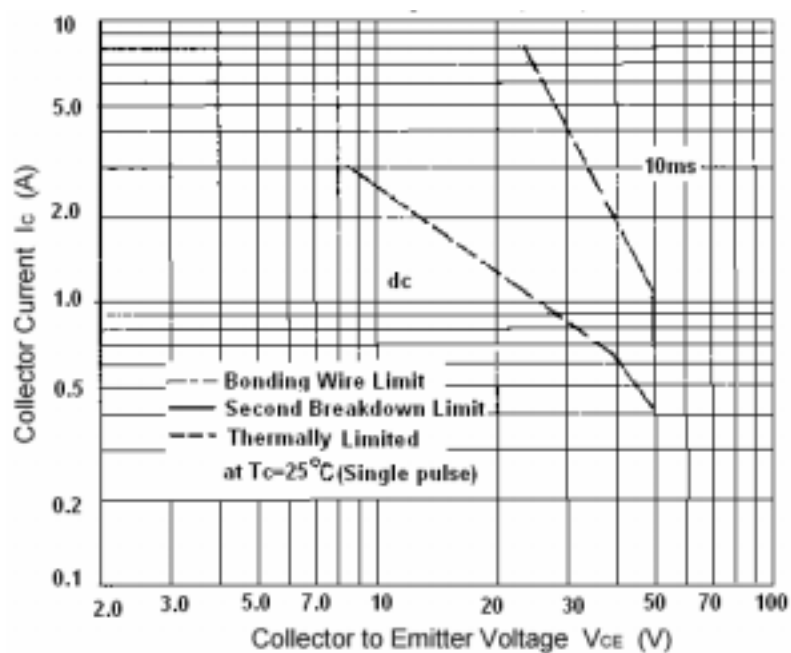


Fig.4 Safe Operating Area