

## Silicon NPN Power Transistors

## 2SC4466

**DESCRIPTION**

- With TO-3PN package
- Complement to type 2SA1693

**APPLICATIONS**

- Audio and general purpose

**PINNING**

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

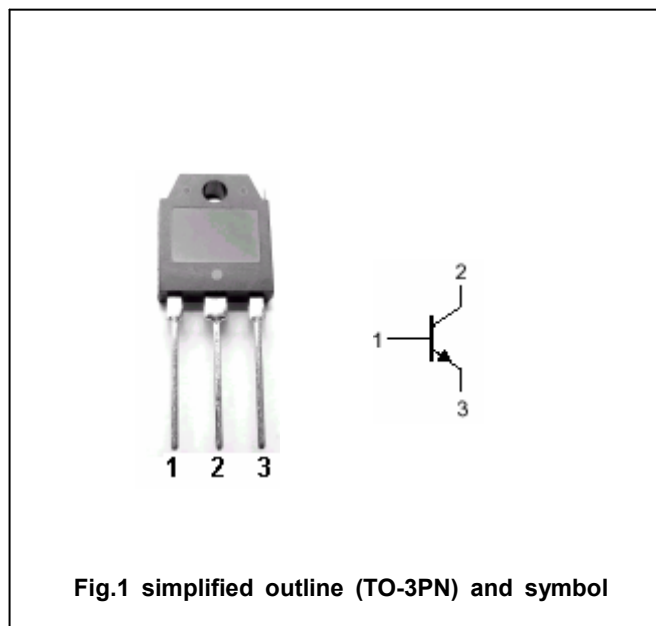


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	120	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	80	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		6	A
I <sub>B</sub>	Base current		3	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	60	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-55~150	□

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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	$I_C=50mA; I_B=0$	80			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=2A; I_B=0.2A$			1.5	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=120V; I_E=0$			10	$\mu A$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=6V; I_C=0$			10	$\mu A$
$h_{FE}$	DC current gain	$I_C=2A; V_{CE}=4V$	50		180	
$C_{OB}$	Output capacitance	$I_E=0; V_{CB}=10V, f=1MHz$		110		pF
$f_T$	Transition frequency	$I_C=-0.5A; V_{CE}=12V$		20		MHz

## Switching times

$t_{on}$	Turn-on time	$I_C=3A; R_L=10\Omega$ $I_{B1}=-I_{B2}=0.3A$ $V_{CC}=30V$		0.16		$\mu s$
$t_s$	Storage time			2.60		$\mu s$
$t_f$	Fall time			0.34		$\mu s$

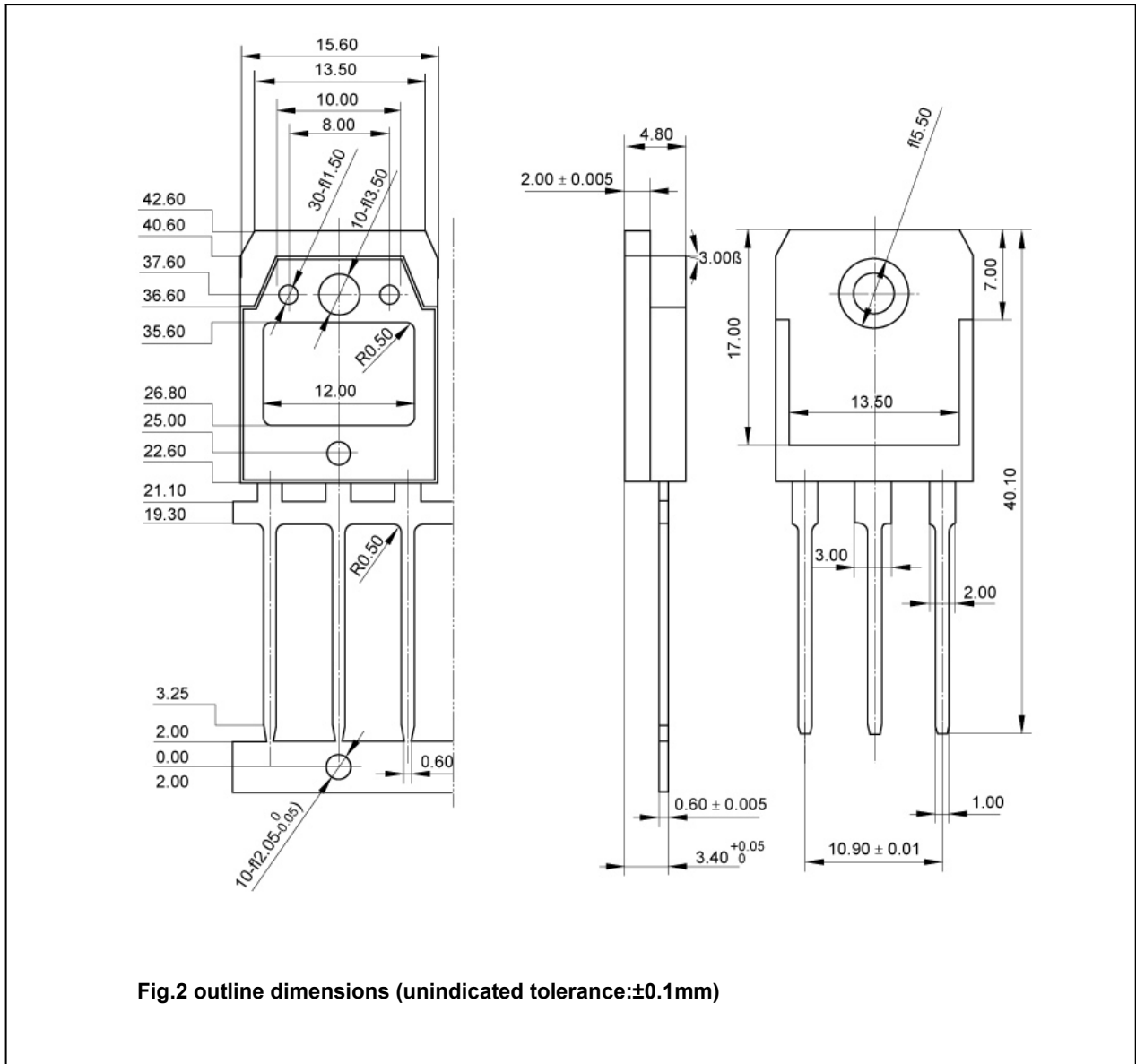
◆  $h_{FE}$  Classifications

O	P	Y
50-100	70-140	90-180

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PACKAGE OUTLINE



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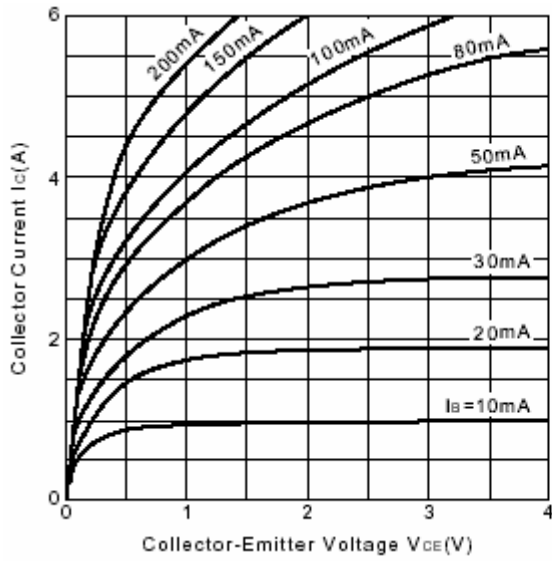


Fig.3 Static Characteristic

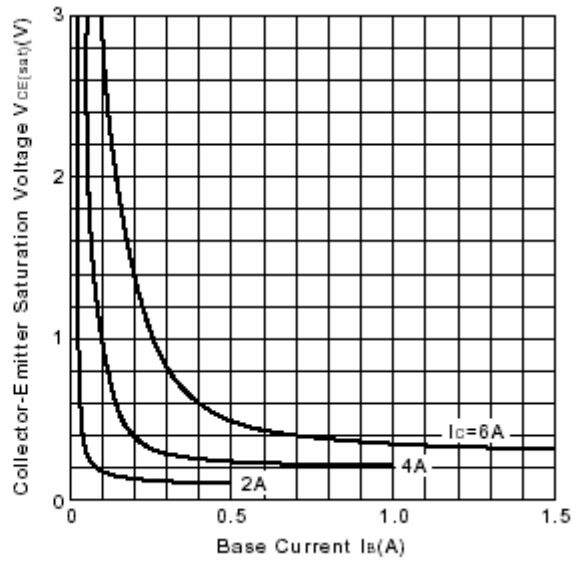


Fig.4  $V_{ce(sat)}-I_b$  Characteristics

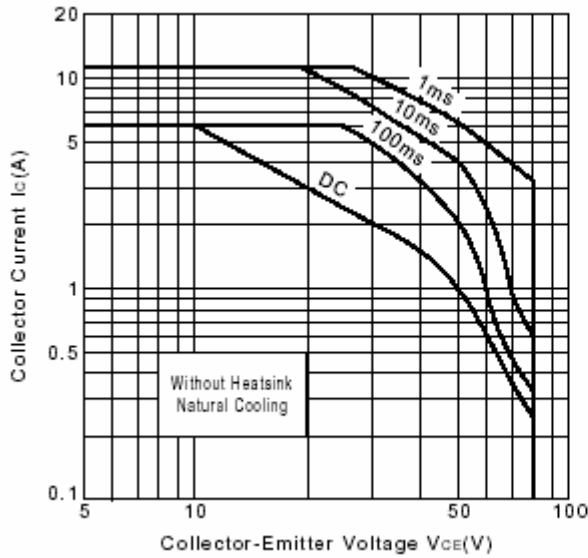


Fig.5 Safe Operating Area

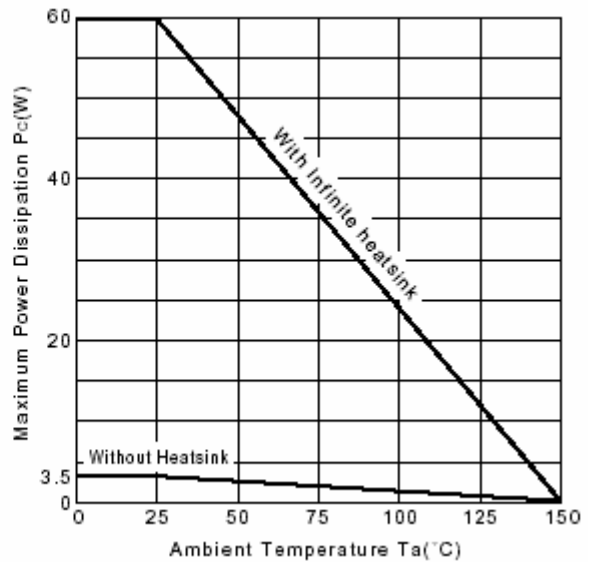


Fig.6  $P_c-T_a$  Derating

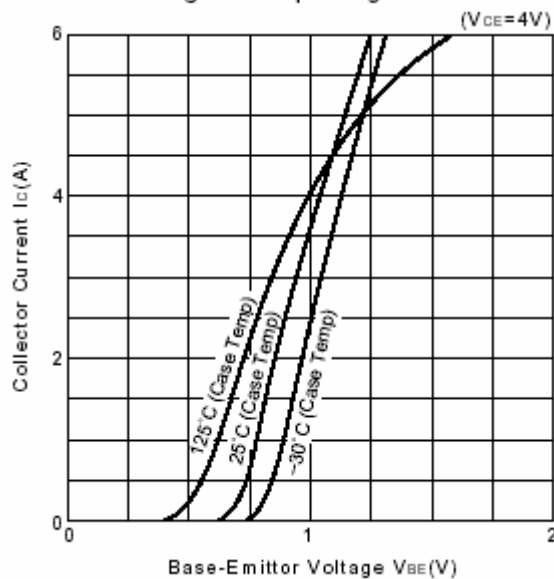


Fig.7  $I_c-V_{be}$

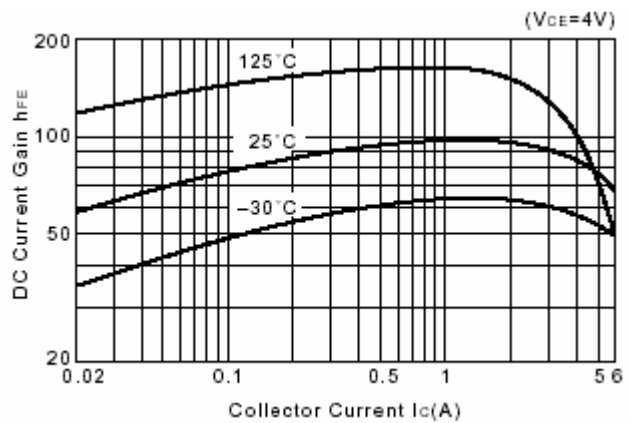


Fig.8 DC current Gain