

## Silicon NPN Power Transistors

2SC1953

## DESCRIPTION

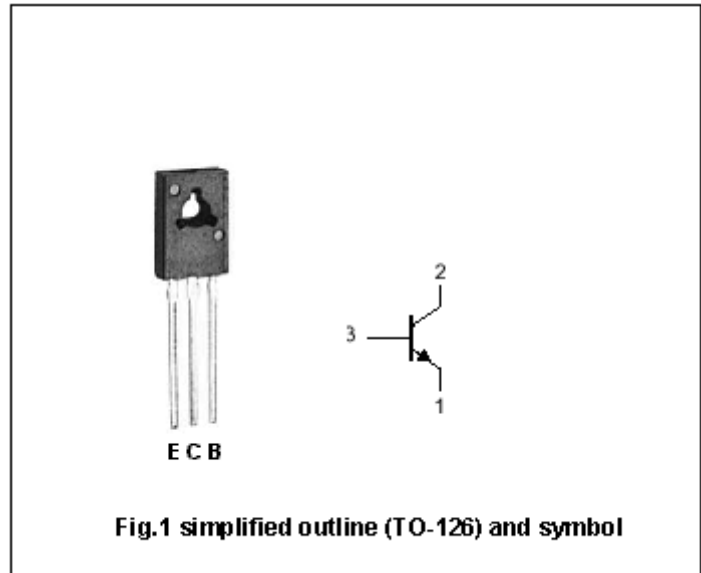
- With TO-126 package
- Complement to type 2SA914
- High  $V_{CE0}$

## APPLICATIONS

- For low-frequency power pre-amplification

## PINNING

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

Absolute Maximun Ratings ( $T_a=25^{\circ}\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	150	V
$V_{CEO}$	Collector-emitter voltage	Open base	150	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		50	mA
$I_{CM}$	Collector current-peak		100	mA
$P_C$	Collector power dissipation		1.2	W
$T_j$	Junction temperature		150	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^{\circ}\text{C}$

## Silicon NPN Power Transistors

## 2SC1953

## CHARACTERISTICS

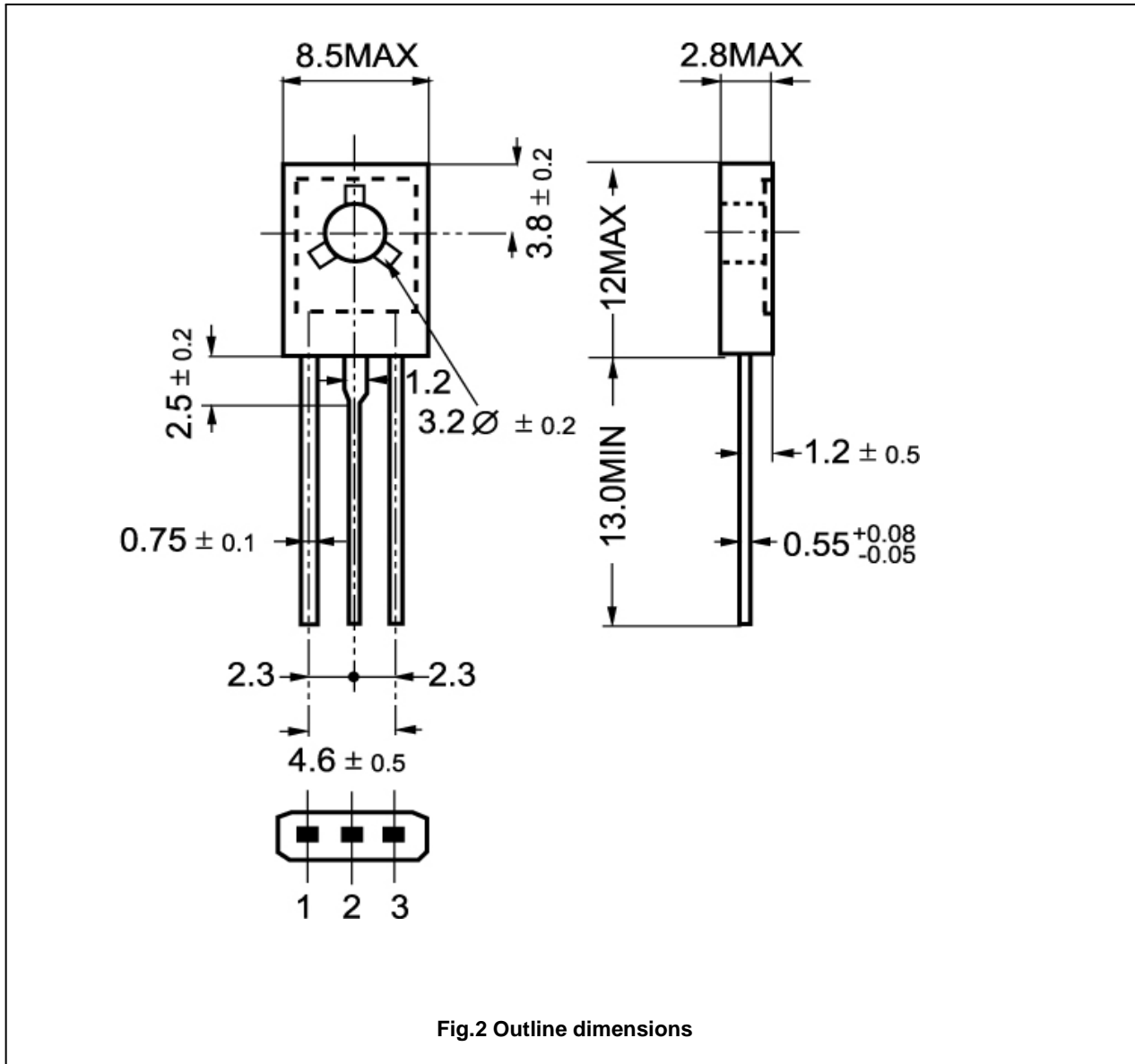
T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =0.1mA; I <sub>B</sub> =0	150			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10 μ A ; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =30mA ; I <sub>B</sub> =3mA			1	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			1	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10mA ; V <sub>CE</sub> =5V	130		330	
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=1MHz			3	pF
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =-10mA ; V <sub>CB</sub> =10V	70			MHz

◆ h<sub>FE</sub> Classifications

R	S
130-220	185-330

PACKAGE OUTLINE



Silicon NPN Power Transistors

2SC1953

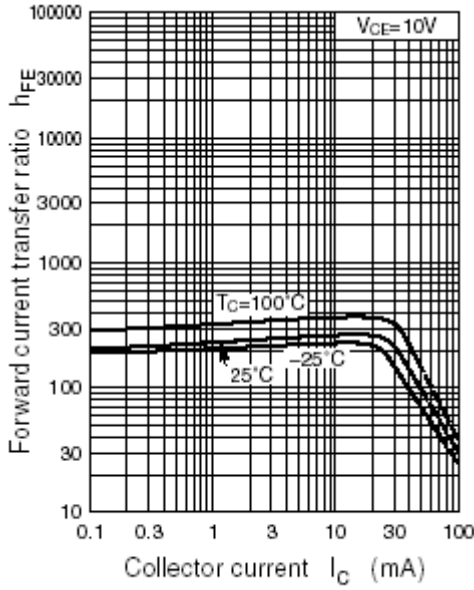


Fig.3 DC current Gain

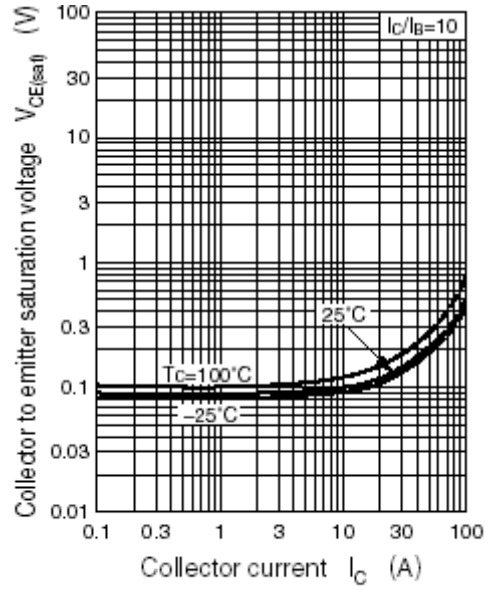


Fig.4 Collector-Emitter Saturation Voltage

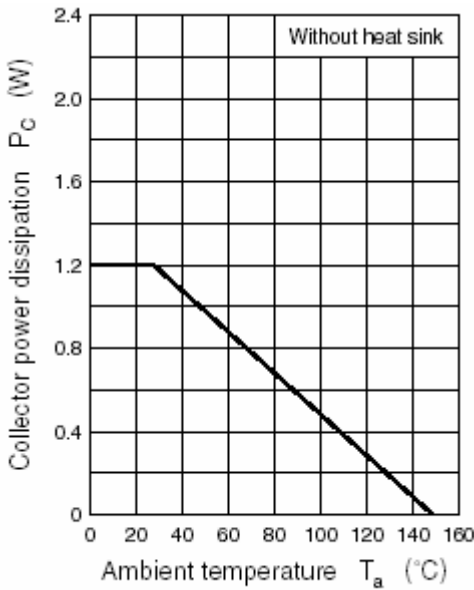


Fig.5 Power Derating