

## Silicon NPN Power Transistors

2SD882

## DESCRIPTION

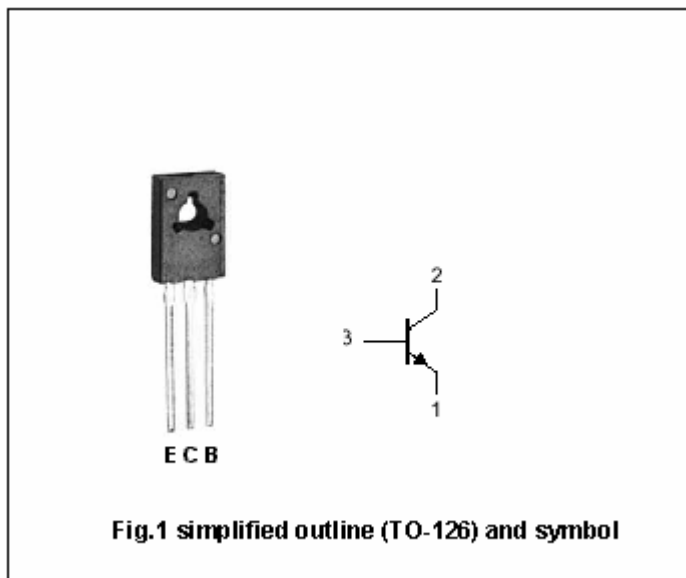
- With TO-126 package
- Complement to type 2SB772

## APPLICATIONS

- Audio amplifier
- Voltage regulator
- DC-DC converter
- Relay driver

## PINNING

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

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	40	V
$V_{CEO}$	Collector-emitter voltage	Open base	30	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current (DC)		3	A
$I_{CM}$	Collector current-peak		7	A
$P_D$	Total power dissipation	$T_a=25^\circ\text{C}$	1	W
		$T_c=25^\circ\text{C}$	10	
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^\circ\text{C}$

## Silicon NPN Power Transistors

## 2SD882

## CHARACTERISTICS

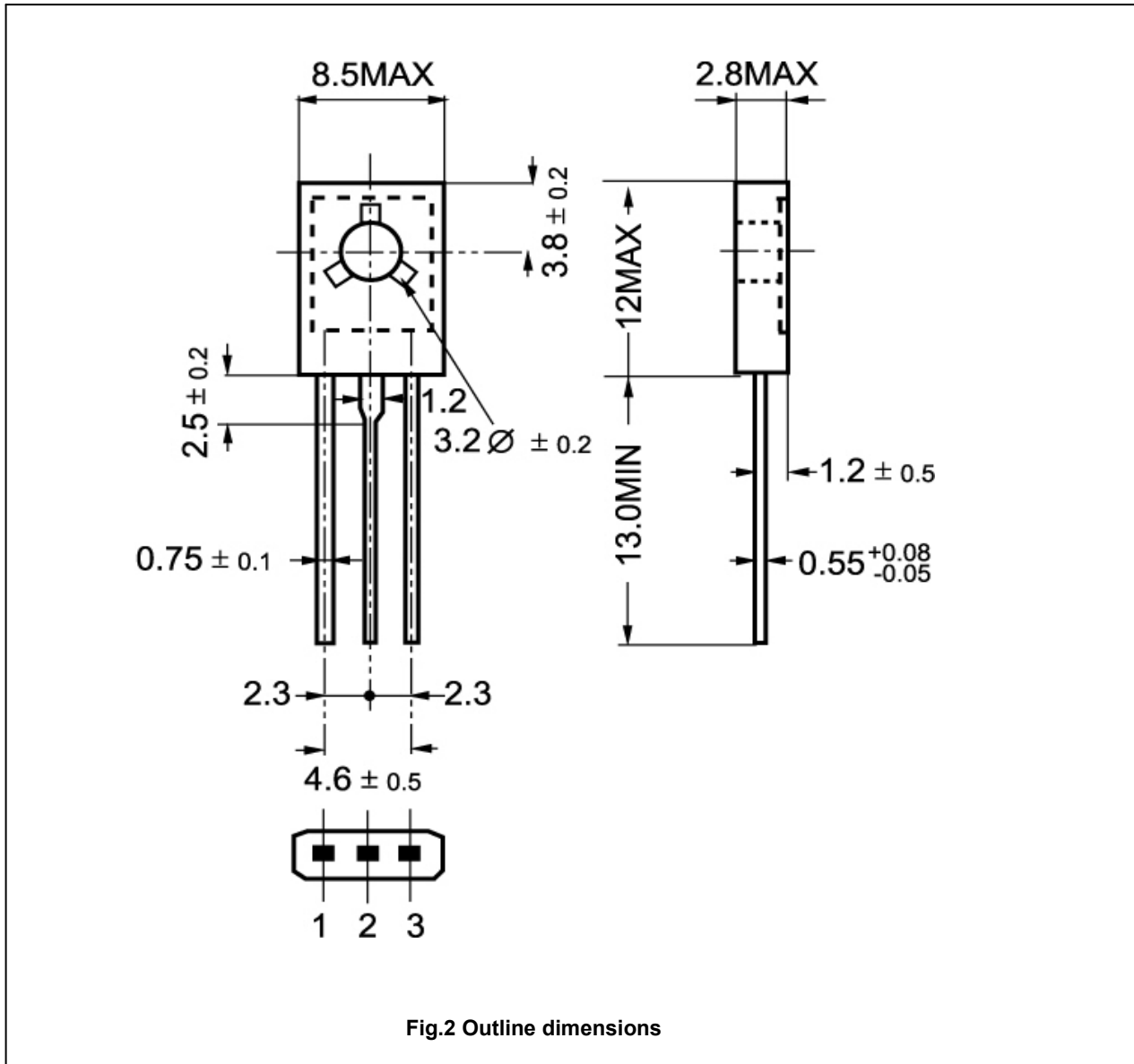
T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =10mA ; I <sub>B</sub> =0	30			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2.0A; I <sub>B</sub> =0.2A			0.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2.0A ; I <sub>B</sub> =0.2A			2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =30V; I <sub>E</sub> =0			1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =3V; I <sub>C</sub> =0			1	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =20mA ; V <sub>CE</sub> =2V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =2V	60		400	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V		90		MHz
C <sub>OB</sub>	Collector output capacitance	f=1MHz ; V <sub>CB</sub> =10V		45		pF

◆ h<sub>FE-2</sub> Classifications

R	Q	P	E
60-120	100-200	160-320	200-400

PACKAGE OUTLINE



Silicon NPN Power Transistors

2SD882

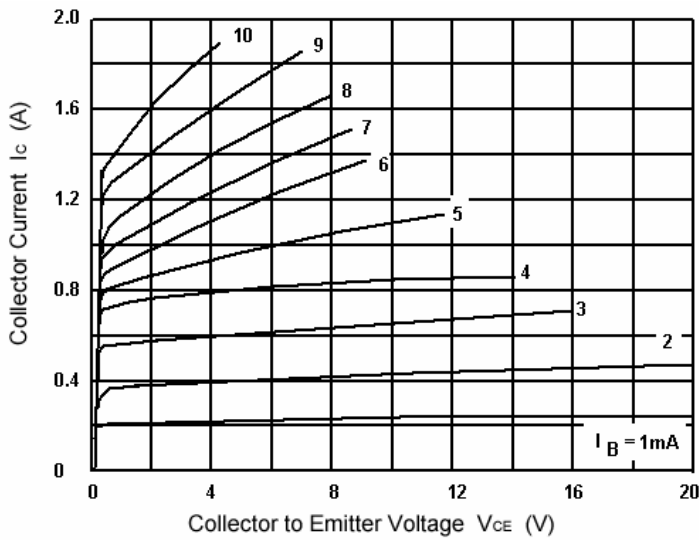


Fig.3 Static Characteristic

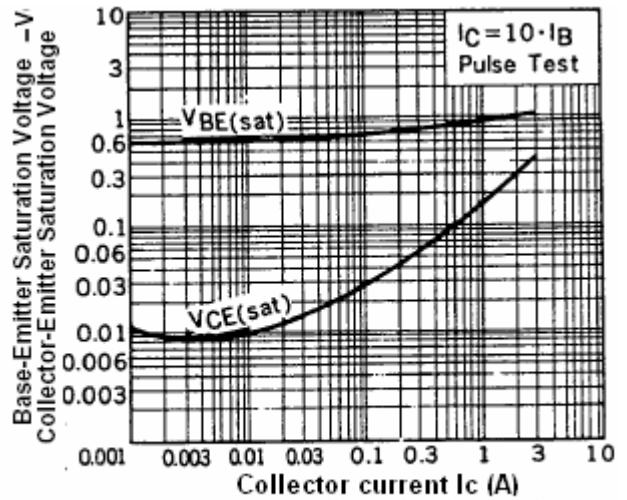


Fig.4 Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

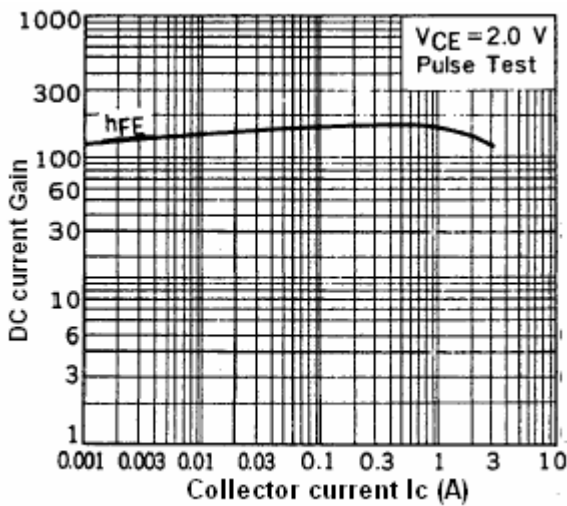


Fig.5 DC current Gain

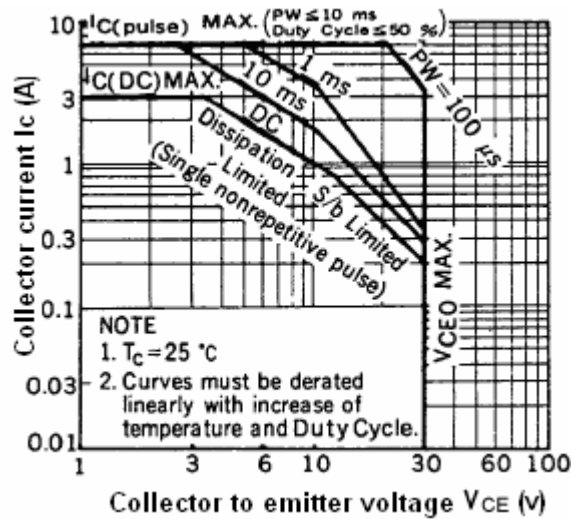


Fig.6 Safe Operating Area