

## Silicon NPN Power Transistors

2SC2258

## DESCRIPTION

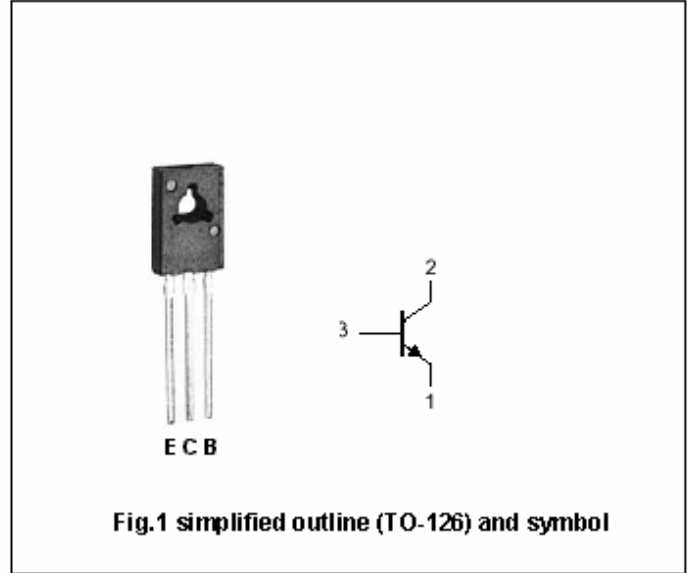
- With TO-126 package
- High transition frequency  $f_T$
- High collector-emitter voltage  $V_{CEO}$

## APPLICATIONS

- For high breakdown voltage general amplification
- For video output amplification

## 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	250	V
$V_{CEO}$	Collector- emitter voltage	Open base	250	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		0.1	A
$I_{CM}$	Collector current-peak		0.15	A
$P_C$	Collector power dissipation	$T_C=25$	$1.2^{*1}$	W
			$4^{*2}$	
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55 ~ +150	

Note :\*1: Without heat sink

\*2: With a 100 × 100 × 2 mm A1 heat sink

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I <sub>CER</sub>	Collector cutoff current	V <sub>CE</sub> =250V;R <sub>BE</sub> =100k			100	μ A
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =0.1mA ;I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =50mA ;I <sub>B</sub> =5m A			1.2	V
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =40mA ; V <sub>CE</sub> =20V			1.2	V
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =40mA ; V <sub>CE</sub> =20V	40			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =5mA ; V <sub>CE</sub> =50V	30			
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =50V;f=1MHz		3	4.5	pF
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =-10mA ; V <sub>CE</sub> =10V,f=200MHz		100		MHz

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PACKAGE OUTLINE

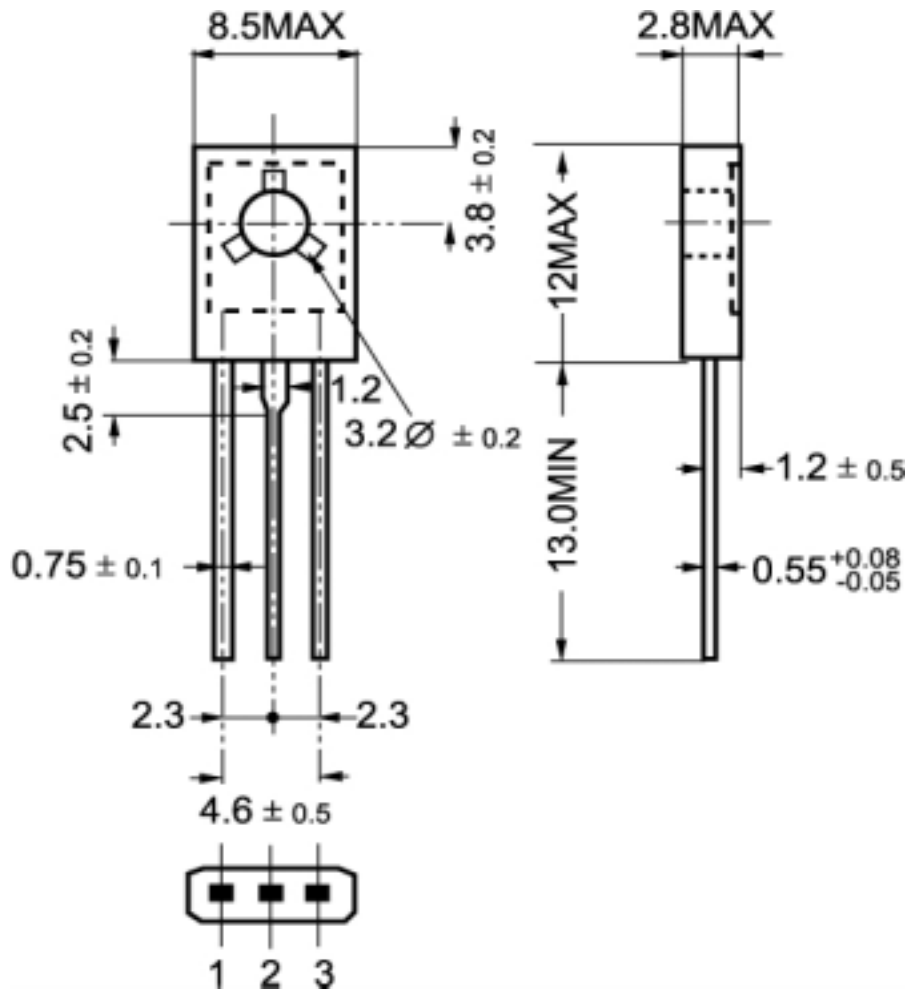


Fig.2 Outline dimensions

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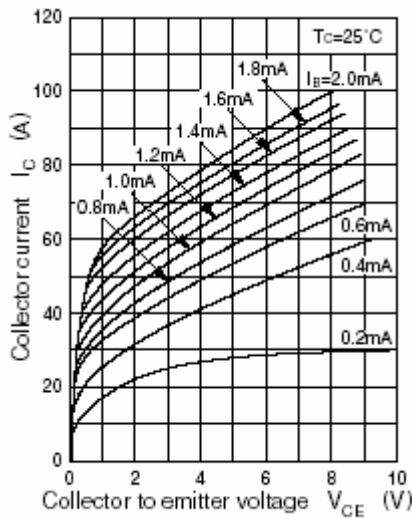


Fig.3 Static Characteristic

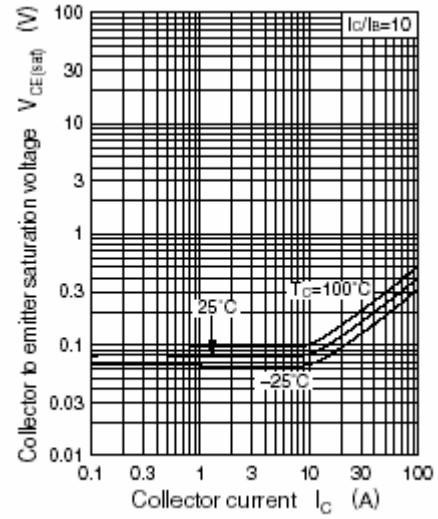


Fig.4 Collector-Emitter Saturation Voltage

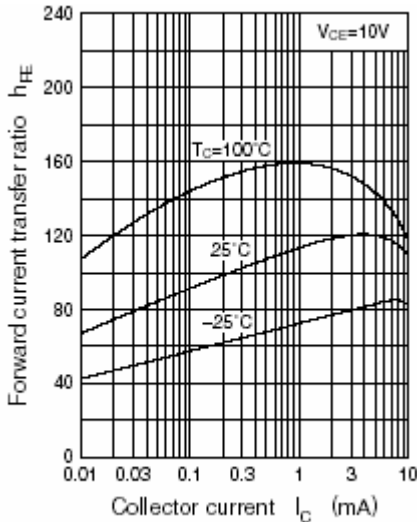


Fig.5 DC current Gain

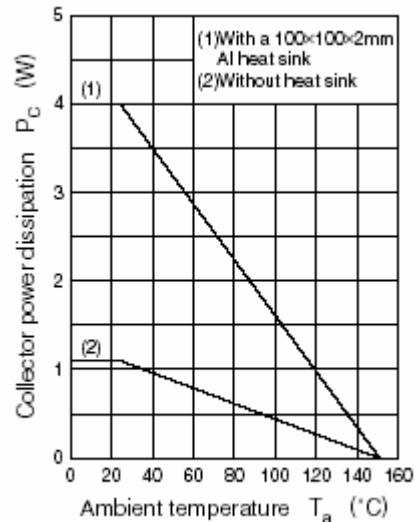


Fig.6 Power Derating