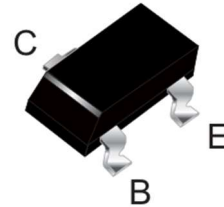


### Features

- Low profile package
- Ideal for automated placement
- Complementary to S9015
- Power Dissipation of 200mW
- High Stability and High Reliability

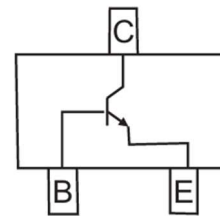
### Appearance & Symbol

SOT-23



### Mechanical Data

- Package: SOT-23
- Epoxy meets UL-94 V-0 flammability rating
- Terminals: Plated solderable per MIL-STD-750, Method 2026



### Application

- Amplifying signal
- Electronic switch
- Oscillating circuit
- Variable resistance

### Order Information

Part Number	Package	Marking	Quantity
S9014	SOT-23	J6	3000

**Absolute Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CB0</sub>	50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	45	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current - Continuous	I <sub>C</sub>	100	mA
Collector Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	625	°C/W
Junction Temperature	T <sub>J</sub>	-55 to +150	°C
Junction and Storage Temperature	T <sub>STG</sub>	-55 to +150	°C

**Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)**

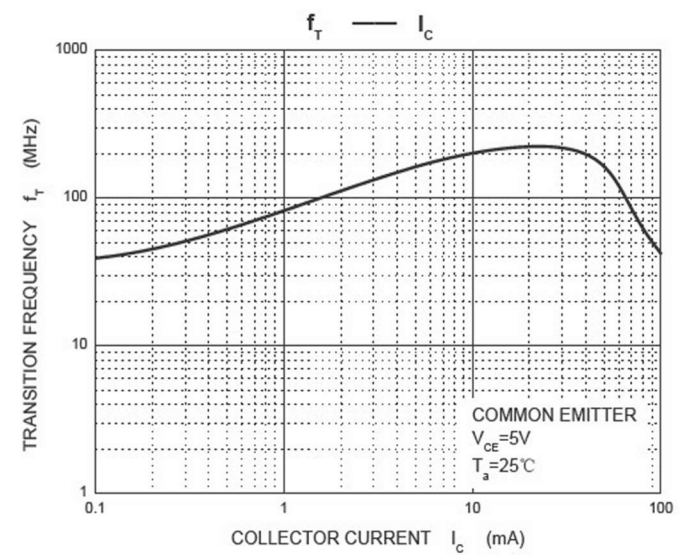
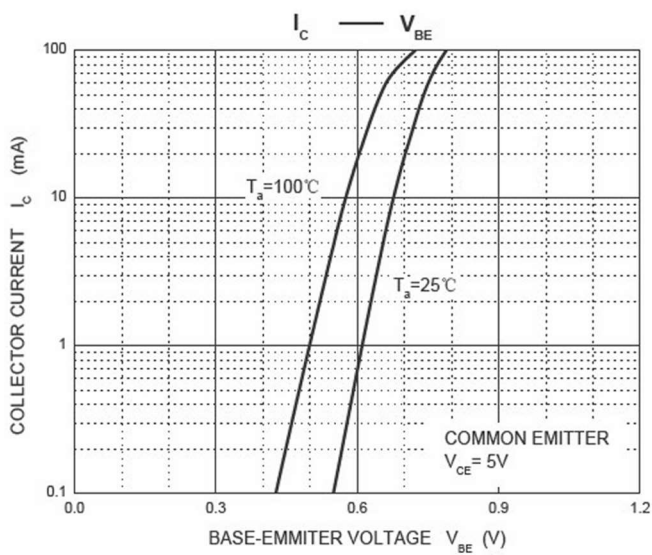
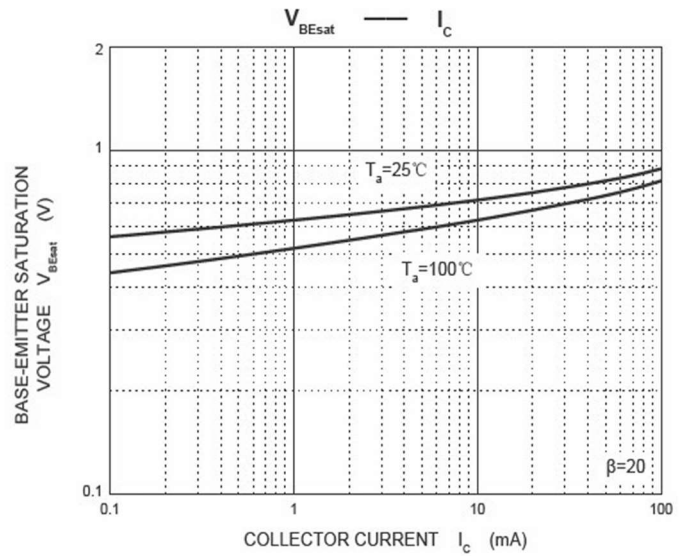
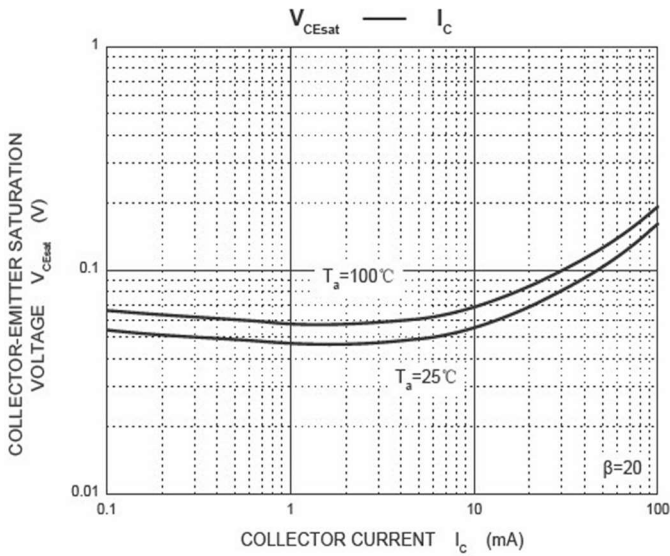
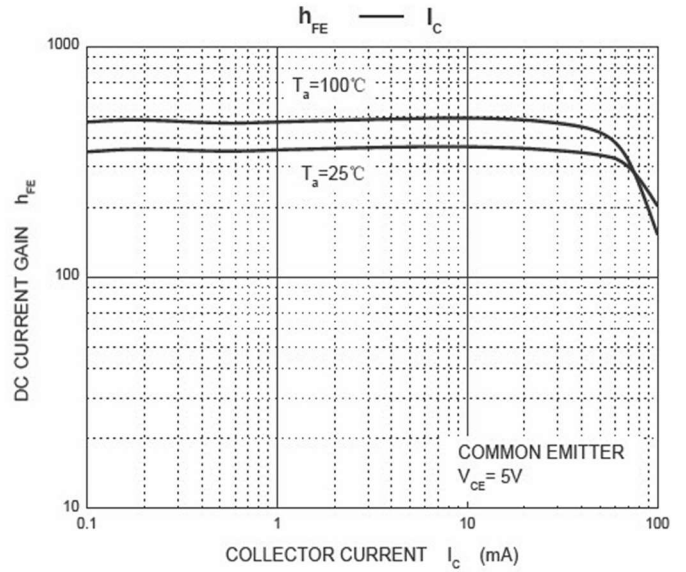
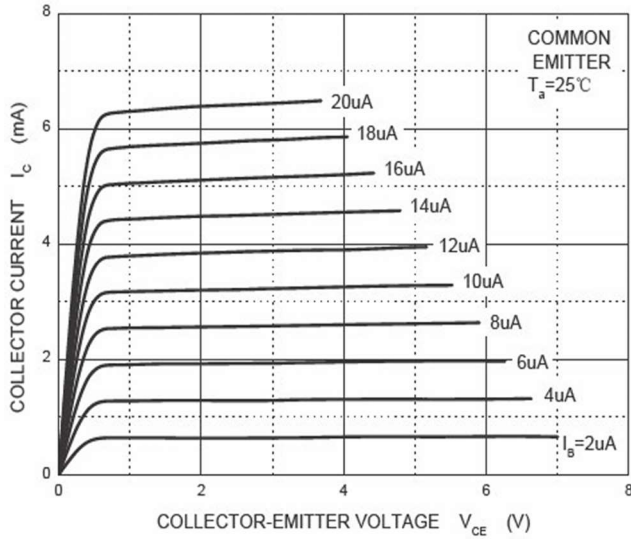
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	50		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =0.1mA, I <sub>B</sub> =0	45		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0		100	nA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =35V, I <sub>B</sub> =0		100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =3V, I <sub>C</sub> =0		100	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	200	1000	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA		0.3	V
Base -emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA		1.0	V
Current Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA, f=30MHz	150		MHz

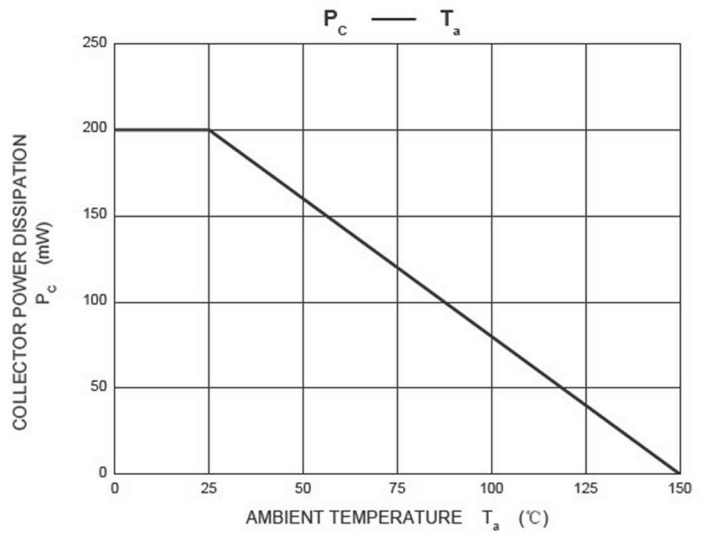
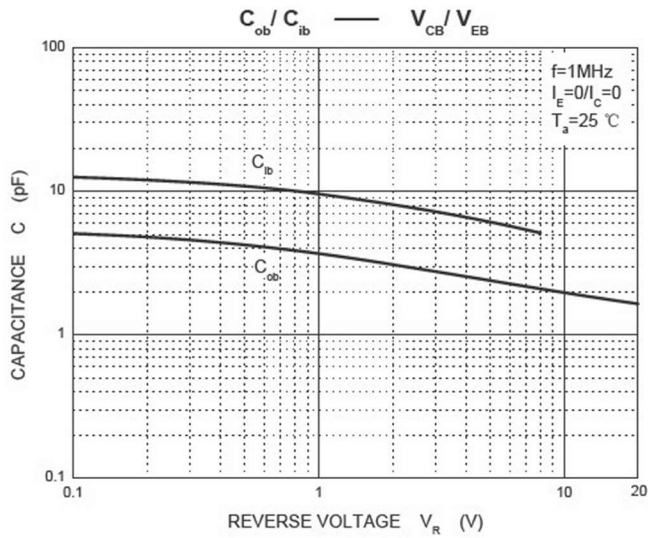
**Classification of h<sub>FE</sub>**

Rank	L	H
Range	200 - 450	450 - 1000

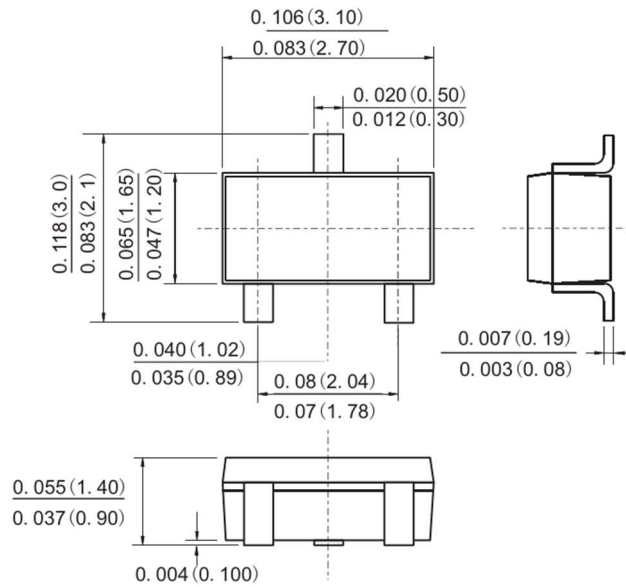
Typical Characteristics

Static Characteristic



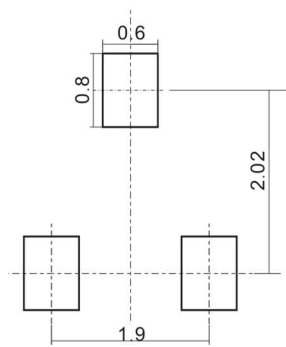


## Package Outline Dimensions (Units: mm) SOT-23



Dimensions in inches and (millimeters)

## Suggested pad layout



Dimensions in millimeters