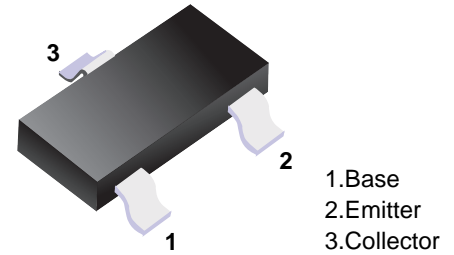


# S9014

## ■ NPN Transistors

### ■ Features

- Excellent hFE linearity
- Collector Current :Ic=0.1A



■ Simplified outline(SOT-23)

### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	45	V
Emitter-Base Voltage	V <sub>EB0</sub>	5	V
Collector Current -Continuous	I <sub>c</sub>	0.1	A
Collector Power Dissipation	P <sub>c</sub>	0.2	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to 150	°C

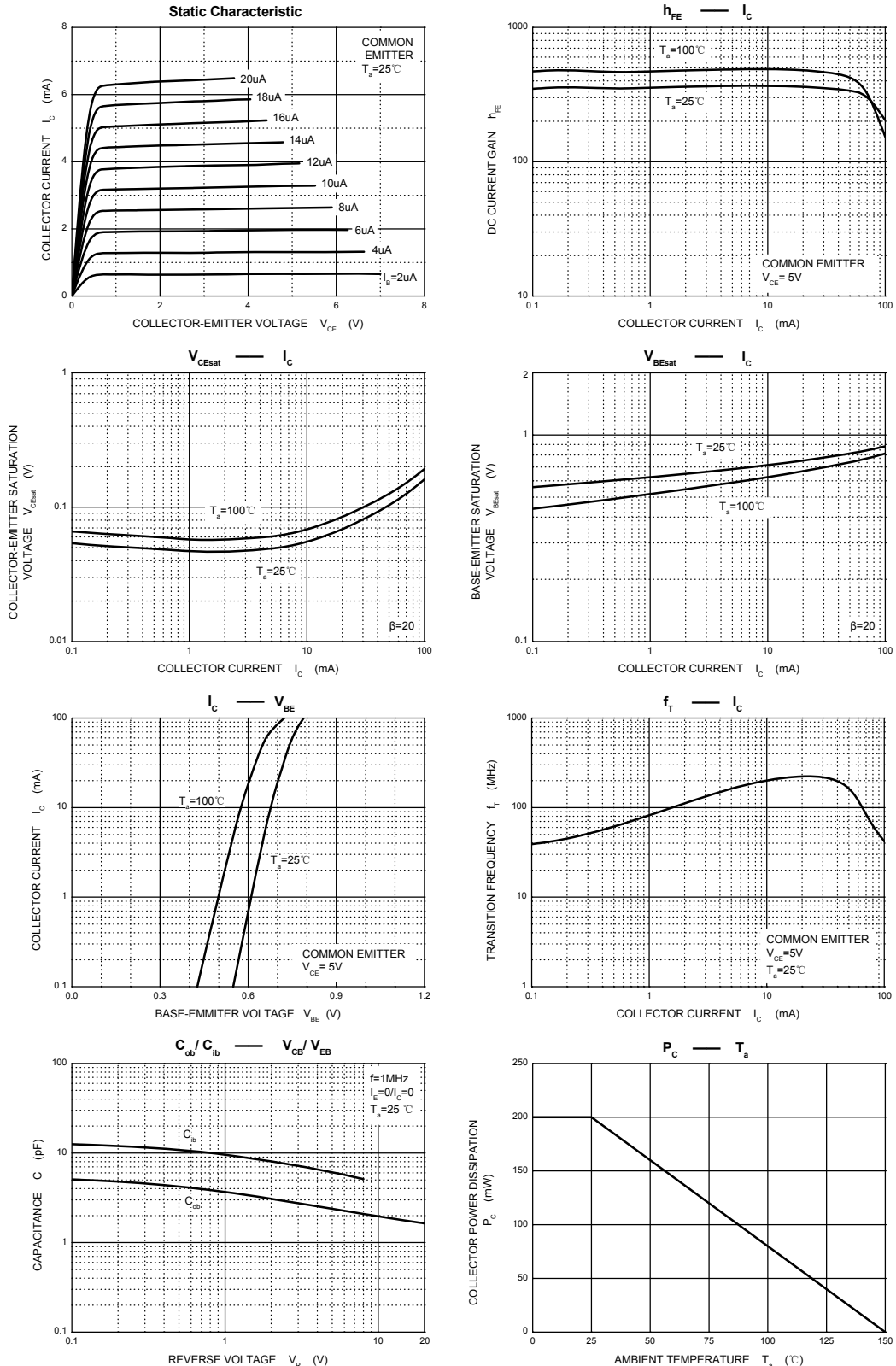
### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> =100uA, I <sub>E</sub> =0	50			V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>c</sub> =1mA, I <sub>B</sub> =0	45			V
Emitter-base Breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> =100 μ A, I <sub>c</sub> =0	5			V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0			0.1	μ A
Emitter cutoff current	I <sub>EB0</sub>	V <sub>EB</sub> =5V, I <sub>c</sub> =0			0.1	μ A
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> =10mA			0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =100mA, I <sub>B</sub> =10mA			1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>c</sub> =10mA, f=30MHZ	150			MHZ

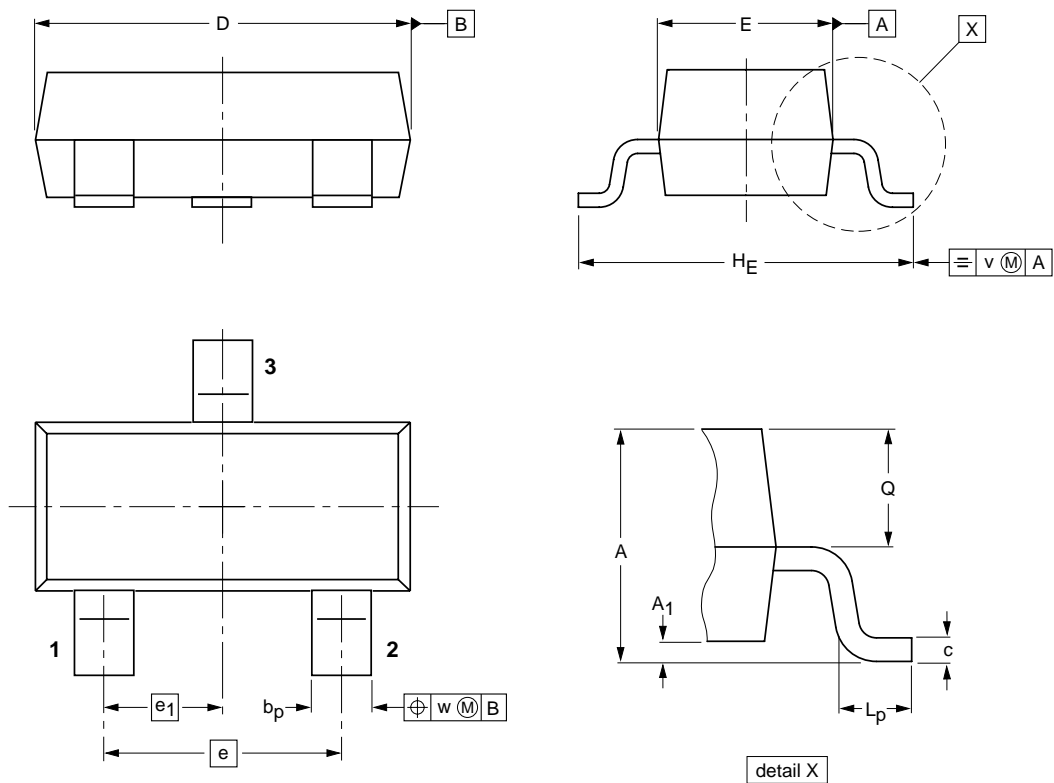
### ■ hFE Classification

Type	S9014-L	S9014-H
Range	200-450	450-1000
Marking	J6	

■ Typical Characteristics



■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1