

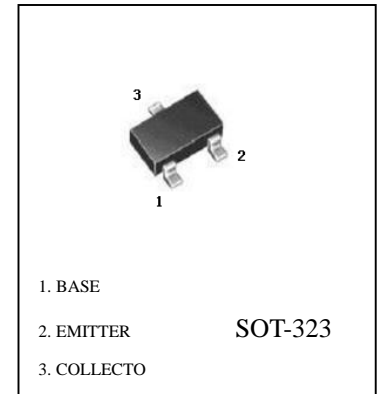
**FEATURES**

Complementary To S9015W.  
 Excellent HFE Linearity.  
 Power dissipation.(P<sub>C</sub>=0.2W)

Marking:J6

MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CBO</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>C</sub>	200	mW
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

**S9014W (NPN)**


ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	50			V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =0.1mA, I <sub>B</sub> =0	45			V
Emitter-base breakdown voltage	V <sub>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			0.1	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> =35V, I <sub>B</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =3V, I <sub>C</sub> =0			0.1	μA
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	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> = 20mA f=30MHz		150		MHz

**S9014W** Typical Characteristics

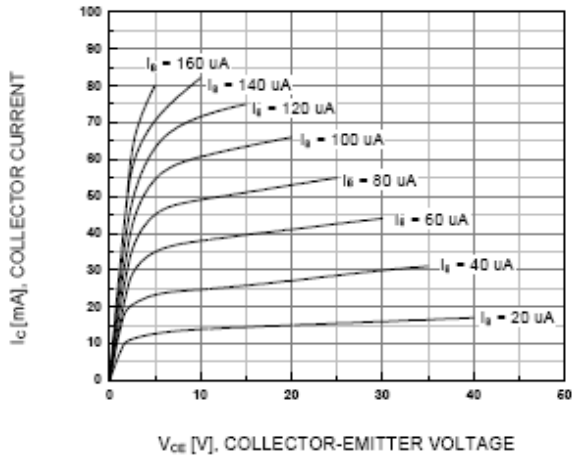


Figure 1. Static Characteristic

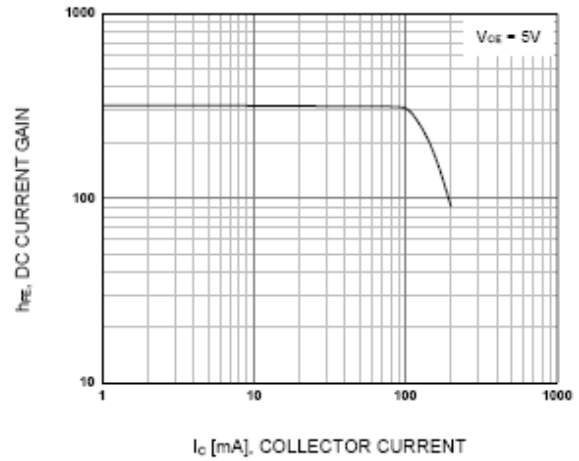


Figure 2. DC current Gain

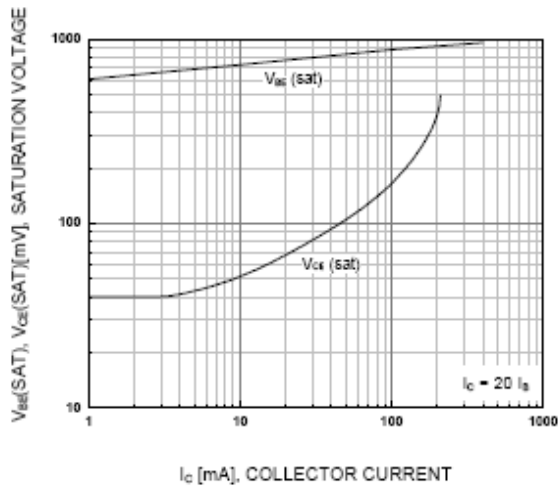


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

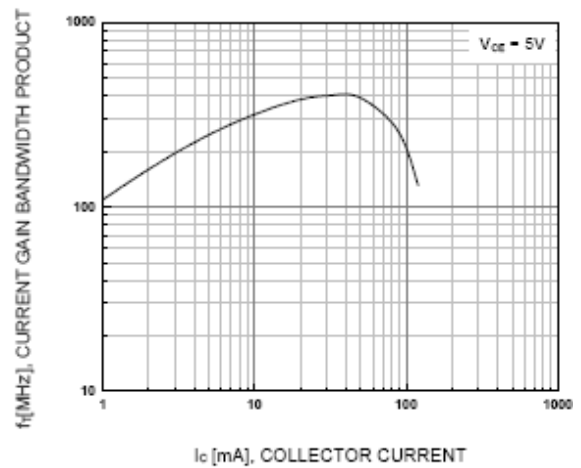


Figure 4. Current Gain Bandwidth Product