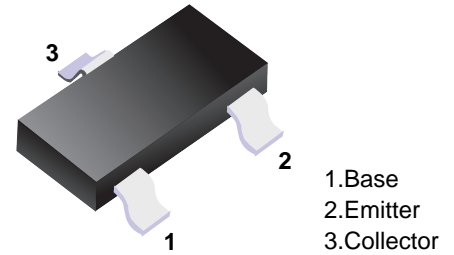


■ PNP Transistors



■ Simplified outline(SOT-23)

■ Features

- High voltage and high current  
V<sub>CEO</sub>=-50V(min.),I<sub>C</sub>=-150mA(max.)
- Low noise: NF=1dB(Typ.) at f=1KHz

■ 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>	-50	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current -Continuous	I <sub>C</sub>	-150	mA
Collector Power Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to 150	°C

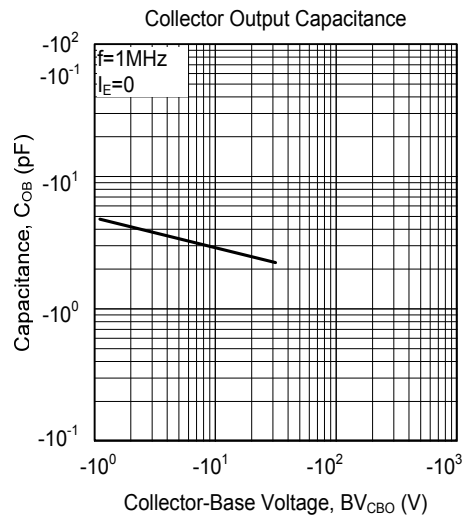
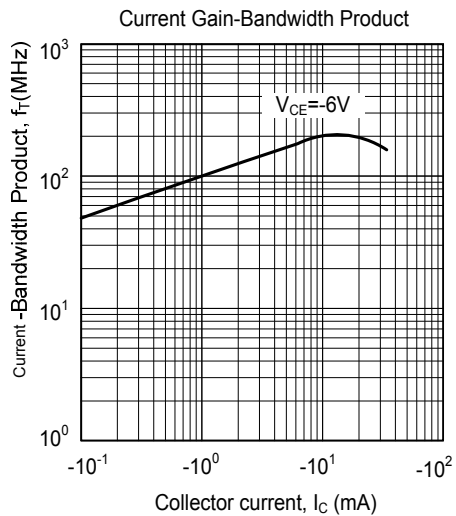
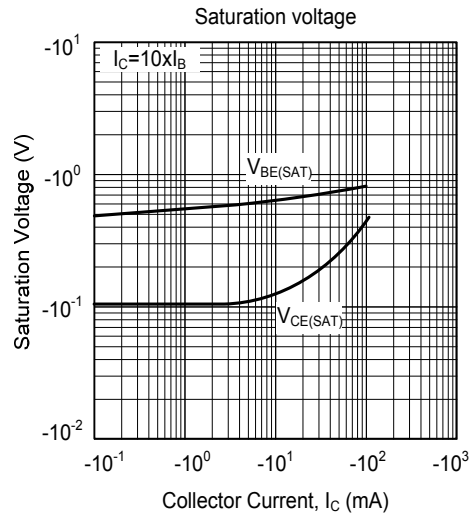
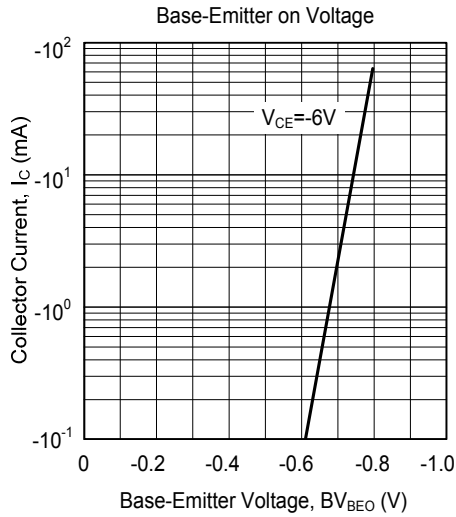
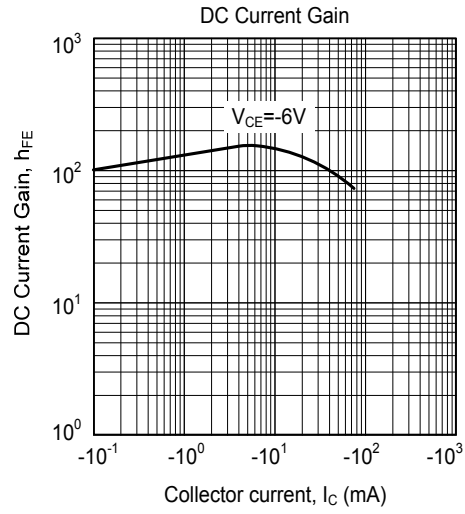
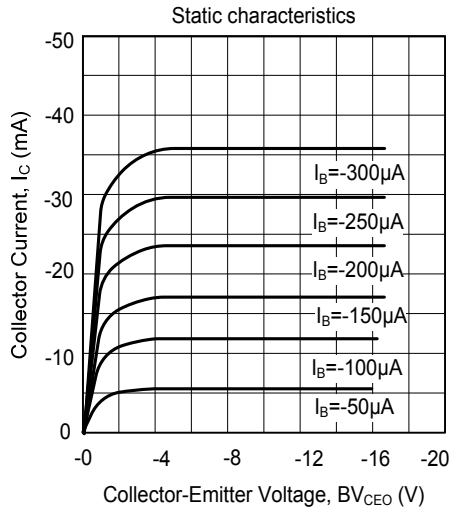
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = -100 μ A, 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	-50			V
Emitter-base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -100 μ A, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =-50V, I <sub>E</sub> =0			-0.1	μ A
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = -50V, I <sub>B</sub> =0			-0.1	μ A
Emitter cut-off 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> =-6V, I <sub>C</sub> = -2mA	130		400	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA			-0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA			-1.1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> = -1mA,f=30MHz	80			MHz

■ hFE Classification

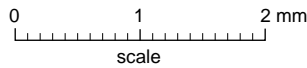
Type	2SA1015-L	2SA1015-H
Range	130-200	200-400
Marking	BAL	BA

■ Typical Characteristics



**Package Outline**

**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

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1