

■ NPN Transistors



■ Simplified outline(SOT-23)

■ Features

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

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	50	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current -Continuous	I _c	0.1	A
Collector Power Dissipation	P _c	0.2	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

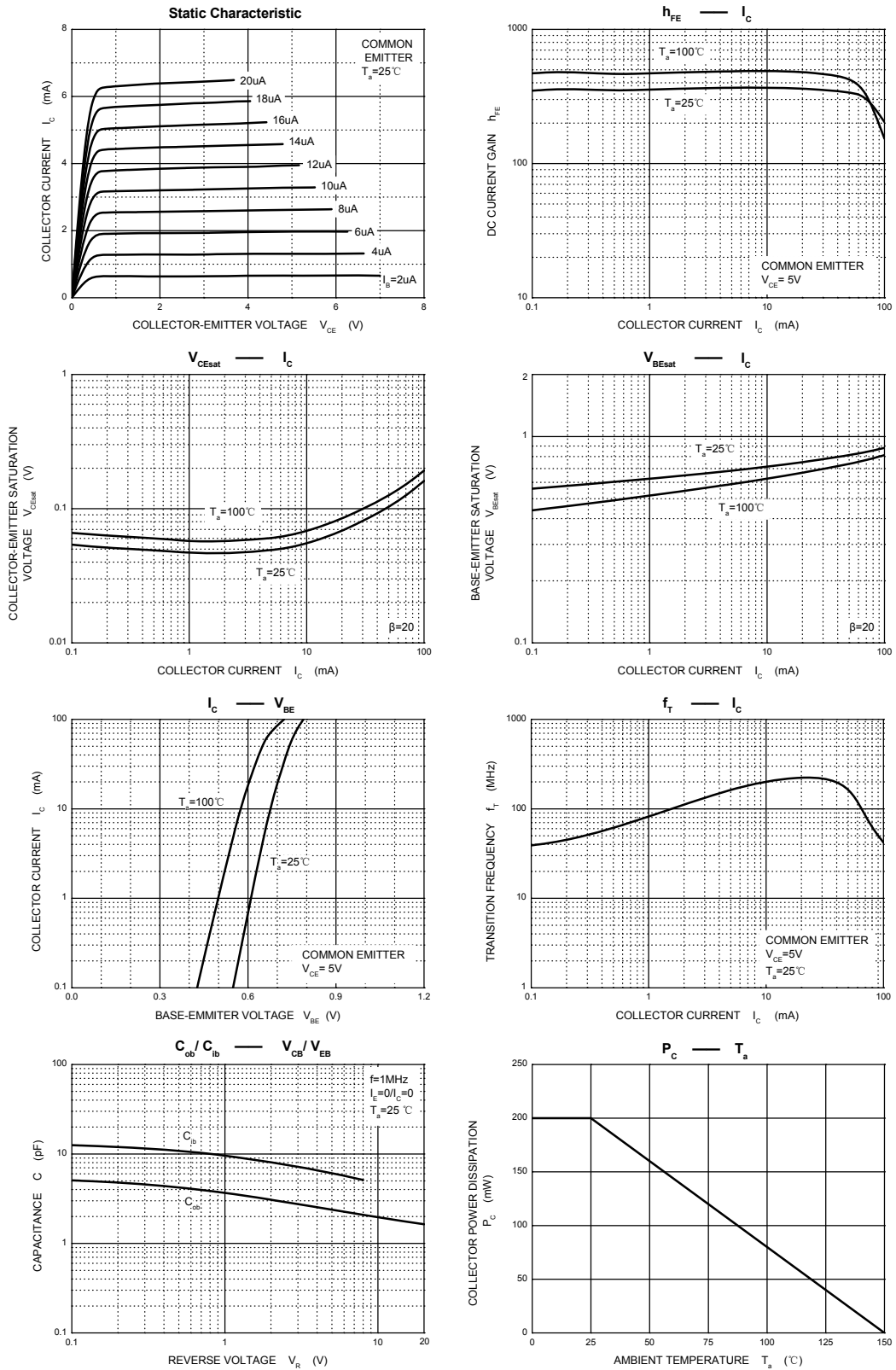
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _c =100uA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{CEO}	I _c =1mA, I _B =0	45			V
Emitter-base Breakdown voltage	V _{EBO}	I _E =100 μ A, I _c =0	5			V
Collector cutoff current	I _{CB0}	V _{CB} =50V, I _E =0			0.1	μ A
Emitter cutoff current	I _{EBO}	V _{EB} =5V, I _c =0			0.1	μ A
DC current gain	h _{FE}	V _{CE} =5V, I _c =1mA	200		1000	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =100mA, I _B =10mA			0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c =100mA, I _B =10mA			1	V
Transition frequency	f _T	V _{CE} =5V, I _c =10mA, f=30MHZ	150			MHZ

■ hFE Classification

Type	S9014	S9014-L	S9014-H
Range	300-400	200-450	450-1000
Marking	J6		

■ Typical Characteristics



Package Outline

SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	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