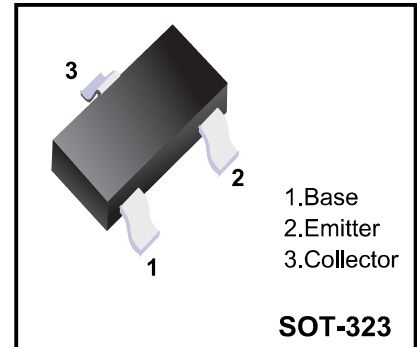


Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

FEATURES

- ◆ Complementary to S9015W
- ◆ Small Surface Mount Package



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	45	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	100	mA
P _C	Collector Power Dissipation	200	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	625	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

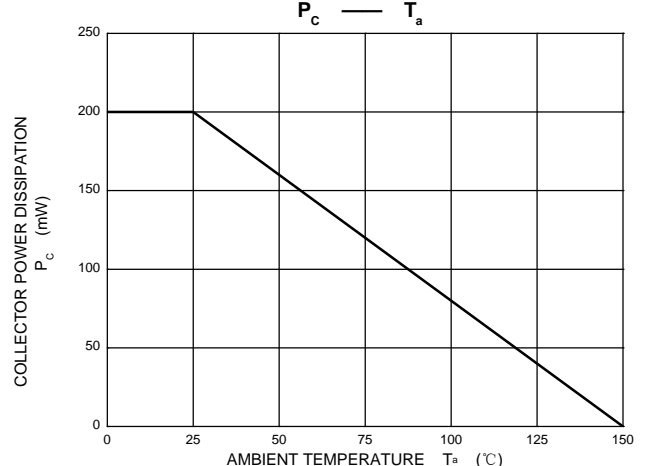
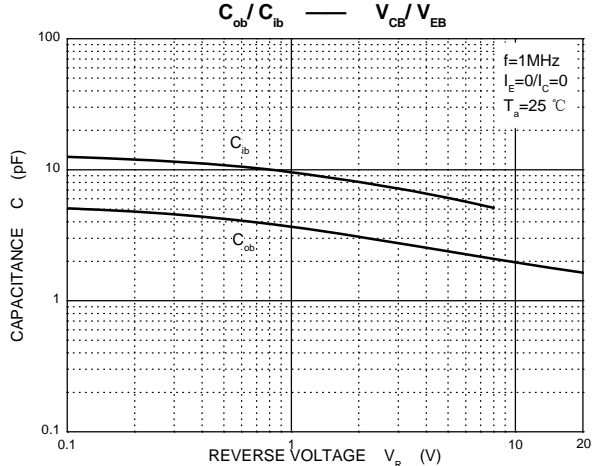
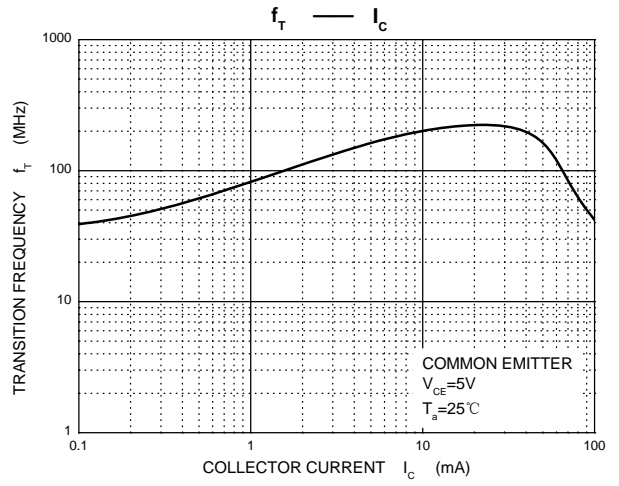
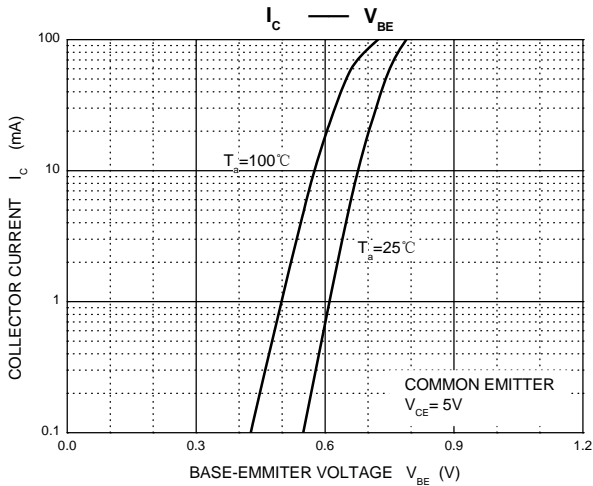
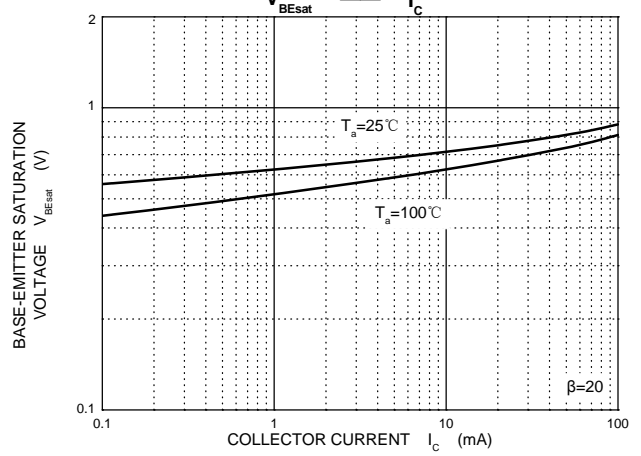
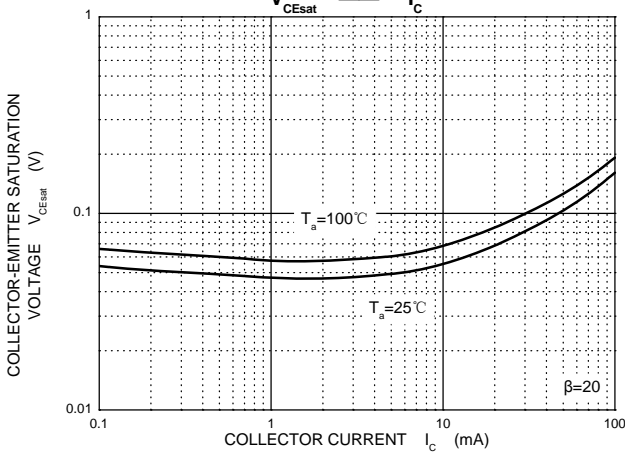
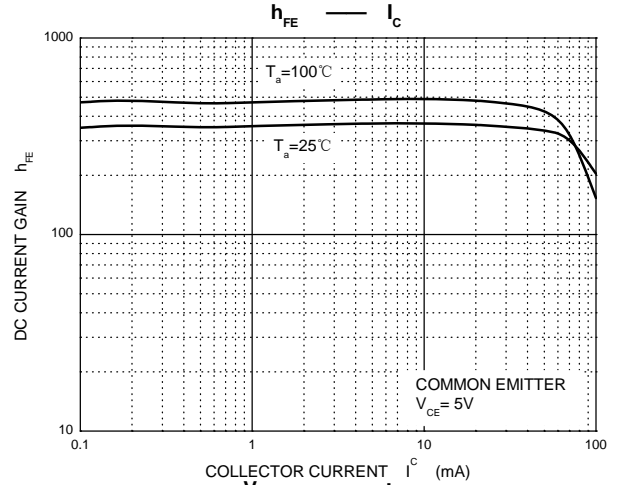
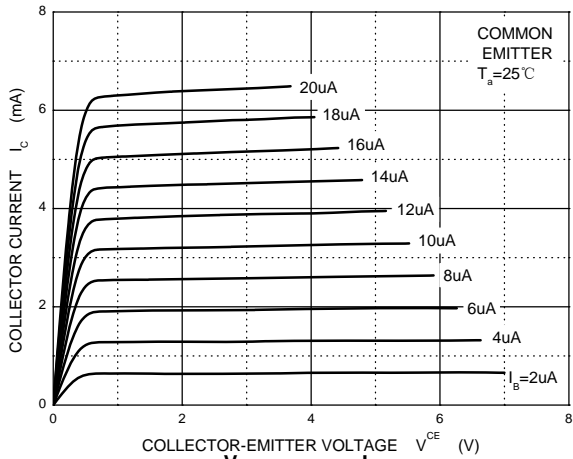
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =100μA, I _B =0	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =50V, I _E =0			100	nA
Collector cut-off current	I _{CEO}	V _{CE} =35V, I _B =0			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			100	nA
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 =5mA			0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =100mA, I _B =5mA			1	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =2mA	0.58		0.7	V
Transition frequency	f _T	V _{CE} =5V, I _C =10mA, f=30MHz	150			MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			3.5	pF

CLASSIFICATION OF h_{FE}

RANK	S9014W-L	S9014W-H
RANGE	200 - 450	450 - 1000
MARKING	J6	

Typical Characteristics Static Characteristic



Ordering information

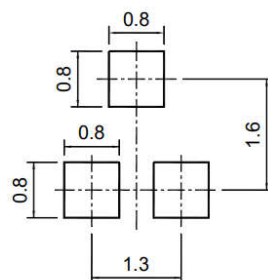
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



Disclaimer

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