

SOT-23 Plastic-Encapsulate Transistors

SOT-23

S9015 TRANSISTOR (PNP)

FEATURES

- Complementary to

1. BASE
2. EMITTER
3. COLLECTOR



S9014 MARKING: M6

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	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	℃/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

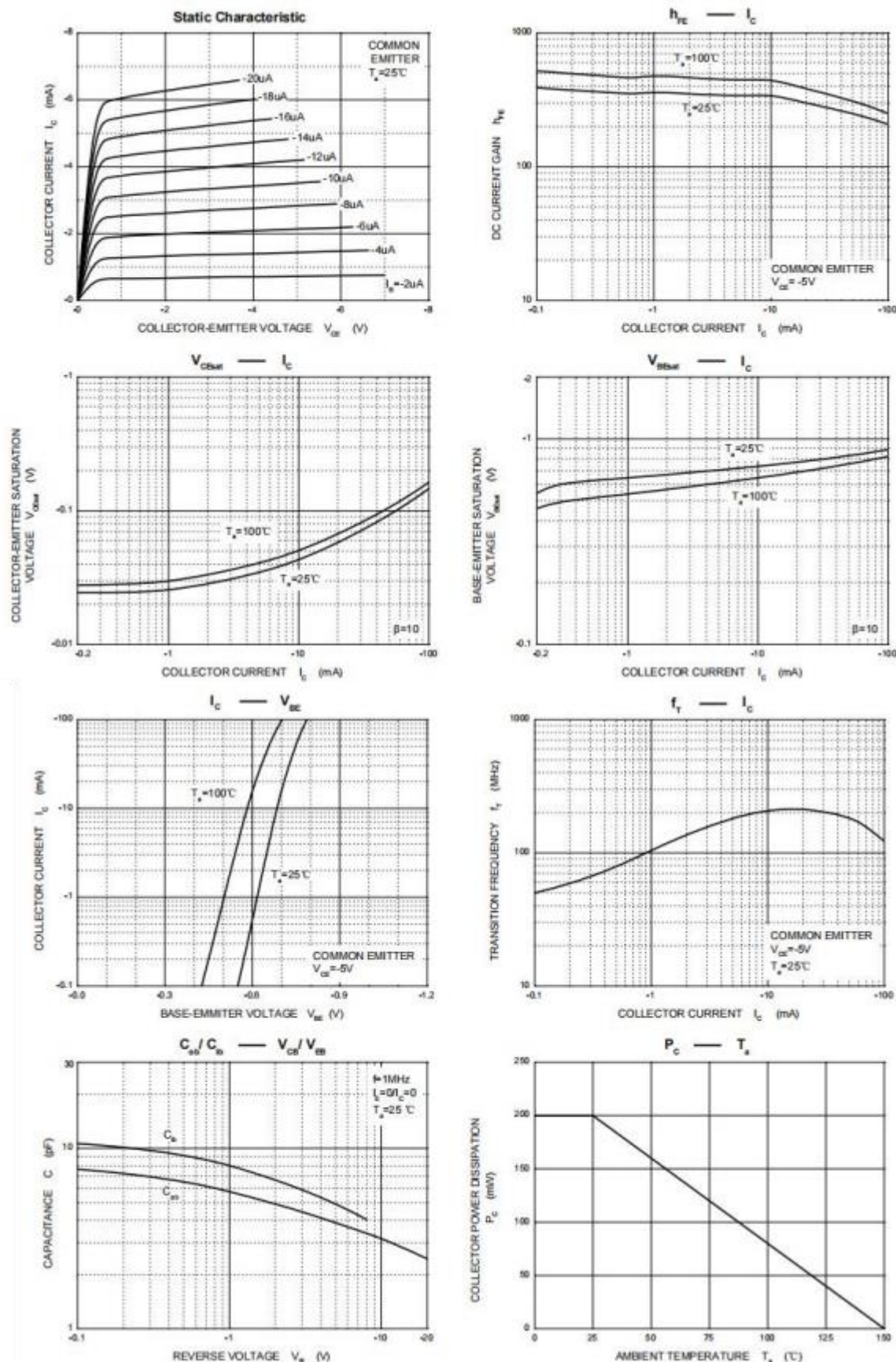
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

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 = -0.1mA, 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} =-50 V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -3V, I _C =0			-0.1	μA
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

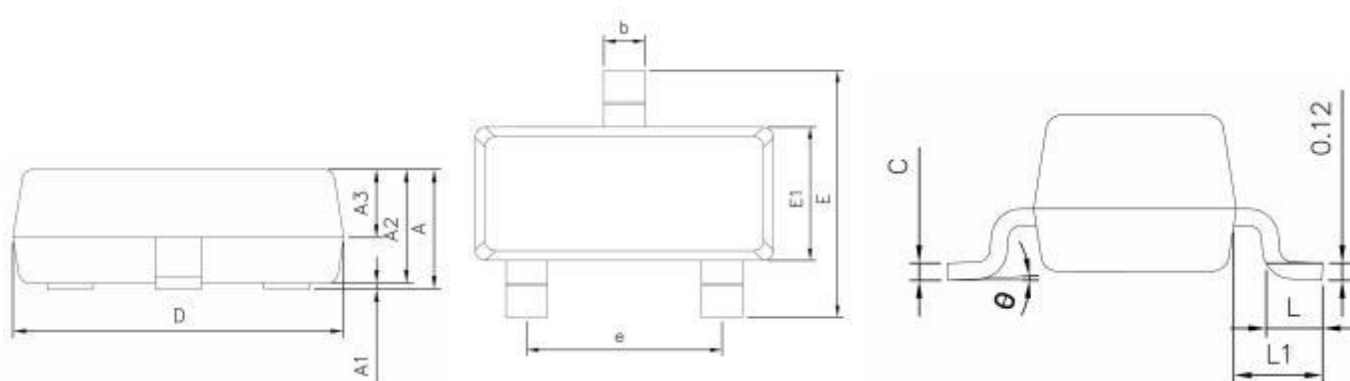
CLASSIFICATION OF h_{FE}

Rank	L	H
Range	200-450	400-1000

Typical Characteristics

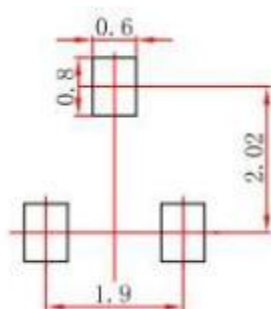


SOT-23 Package Outline Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.9	1.05	1.2
A1	0.0	0.05	0.1
A2	0.90	1.00	1.10
A3	0.55	0.60	0.65
b	0.3	0.40	0.50
c	0.10	0.11	0.12
D	2.80	2.90	3.00
E	2.25	2.4	2.55
E1	1.2	1.3	1.4
e	1.8	1.9	2.0
L	0.30	0.40	0.50
L1	0.475	0.55	0.625
θ	0°	3°	6°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Notice

1.All product,product specifications and data are subject to change without notice to improve.
The right to explain is owned by CCX electronics company.

2.Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.

3.CCX shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.