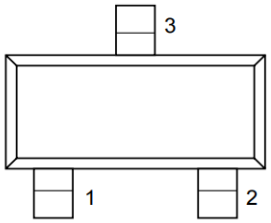
旭昌辉半导体
XUCHANGHUI Semiconductor

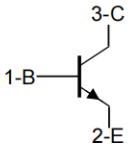
S9014

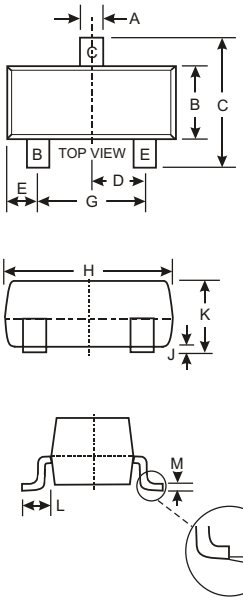
GENERAL PURPOSE TRANSISTORS NPN SILICON

Features

- Complementary to S9015.
- We declare that the material of product compliance with RoHS requirements.
- Marking Code:J6







SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	50	V
Collector Emitter Voltage	V_{CEO}	45	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{Stg}	- 55 to + 150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

OFF CHARACTERISTICS

Characteristic	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage (I_C=1.0mA)	$V(BR)_{CEO}$	45	-	-	V
Emitter-Base Breakdown Voltage (I_E=100μA)	$V(BR)_{EBO}$	5	-	-	V
Collector-Base Breakdown Voltage (I_C=100μA)	$V(BR)_{CBO}$	50	-	-	V
Collector Cutoff Current (V_{CB}=40V)	I_{CBO}	-	-	100	nA
Emitter Cutoff Current (V_{EB}=3V)	I_{EBO}			100	nA

ON CHARACTERISTICS

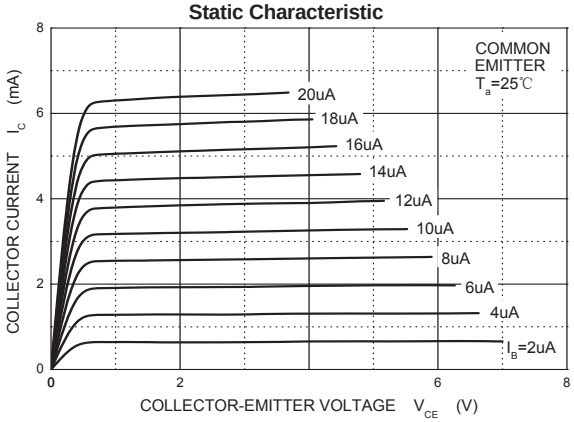
DC Current Gain (I_C=1mA, V_{CE}=5V)	S9014B	HFE	100	-	220	
	S9014C	HFE	200		450	
	S9014D	HFE	400		800	
Collector-Emitter Saturation Voltage (I_C=100mA,I_B=5mA)		VCE	-	-	0.3	V

S9014

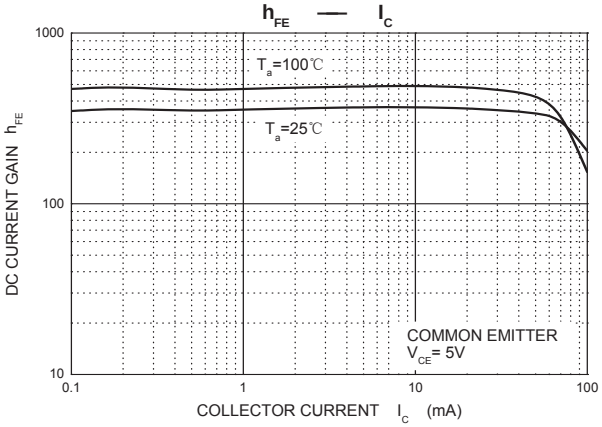
GENERAL PURPOSE TRANSISTORS NPN SILICON

TYPICAL TRANSIENT CHARACTERISTICS

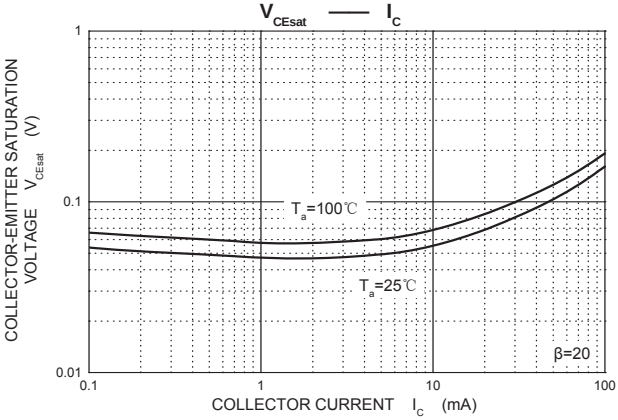
Static Characteristic



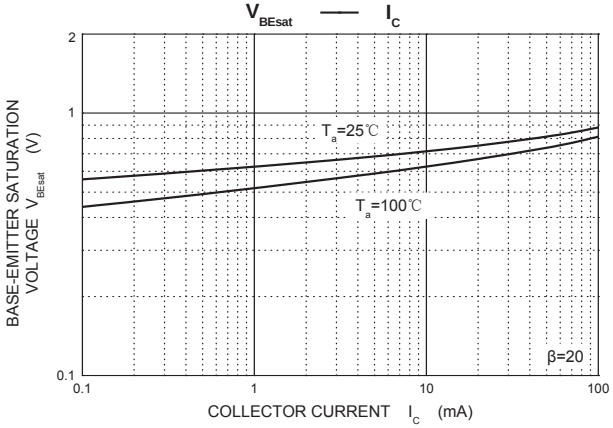
h_{FE} — I_C



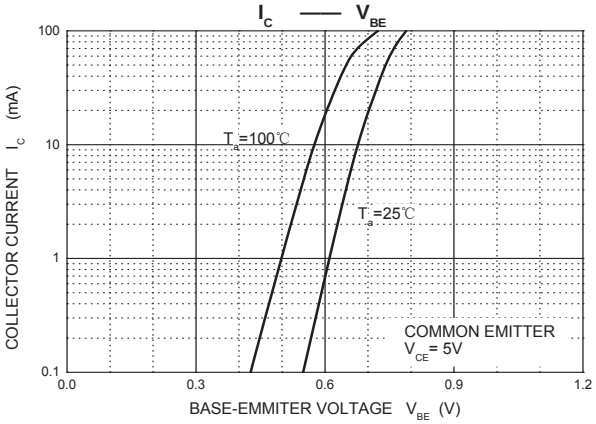
V_{CEsat} — I_C



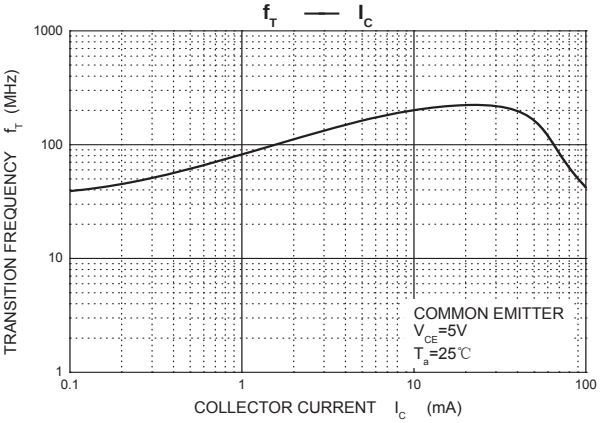
V_{BEsat} — I_C



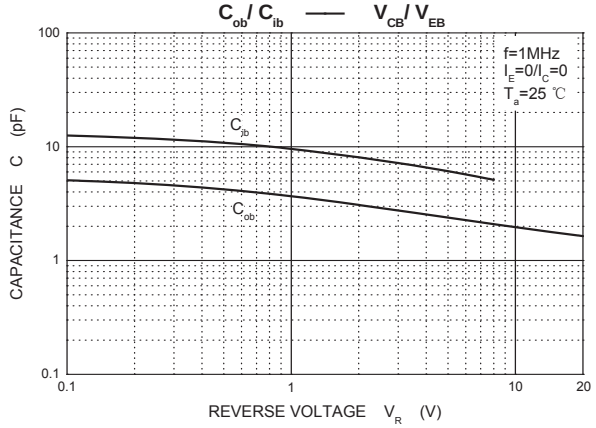
I_C — V_{BE}



f_T — I_C



C_{ob} / C_{ib} — V_{CB} / V_{EB}



P_C — T_a

