

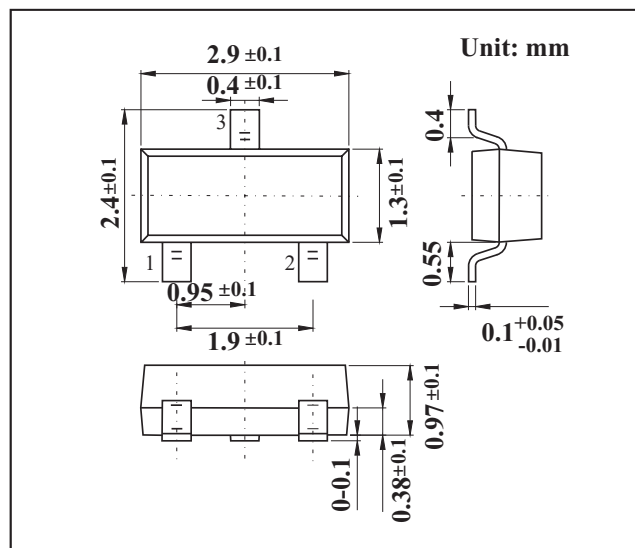
SOT-23 Plastic-Encapsulate Transistors

Features

- Excellent hFE linearity
- Collector Current :IC=0.5A
- NPN Transistors

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	40	V
Collector - Emitter Voltage	V _{CEO}	25	V
Emitter - Base Voltage	V _{EBO}	5	V
Collector Current - Continuous	I _c	500	mA
Collector Power Dissipation	P _c	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

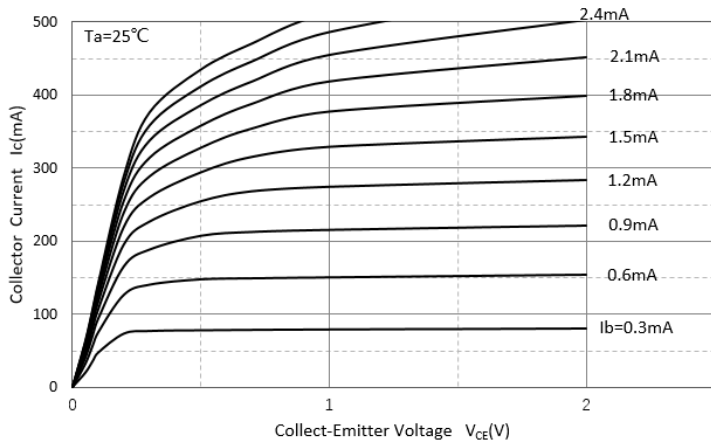
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector - base breakdown voltage	V _{CB0}	I _c = 100 μ A, I _E =0	40			V
Collector - emitter breakdown voltage	V _{CEO}	I _c = 0.1mA, I _B =0	25			V
Emitter - base breakdown voltage	V _{EBO}	I _E =100 μ A, I _c =0	5			V
Collector cut - off current	I _{CB0}	V _{CB} =40 V, I _E =0			0.1	μ A
Collector cut -off current	I _{CEO}	V _{CE} =20V, I _B =0			1	μ A
Emitter cut - off current	I _{EBO}	V _{EB} = 5V, I _c =0			0.1	μ A
DC current gain	h _{FE}	V _{CE} =1V, I _c = 50mA	120		400	
		V _{CE} =1V, I _c =500mA	40			
Collector - emitter saturation voltage	V _{CE(sat)}	I _c =500 mA, I _B = 50mA			0.6	V
Base - emitter saturation voltage	V _{BE(sat)}	I _c =500 mA, I _B = 50mA			1.2	V
Transition frequency	f _T	V _{CE} =6V, I _c = 20mA, f=30MHz	150			MHz

Classification of h_{FE}(1)

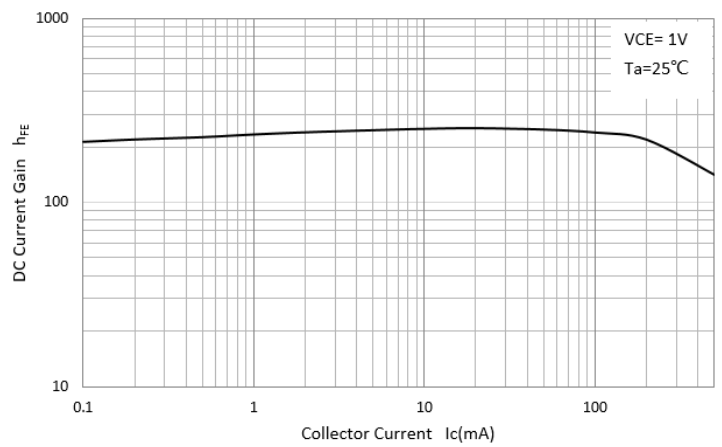
Type	KST9013	KST9013-L	KST9013-H	KST9013-J
Range	200-350	120-200	144-202	300-400
Marking	J3			

RATINGS AND CHARACTERISTIC CURVES

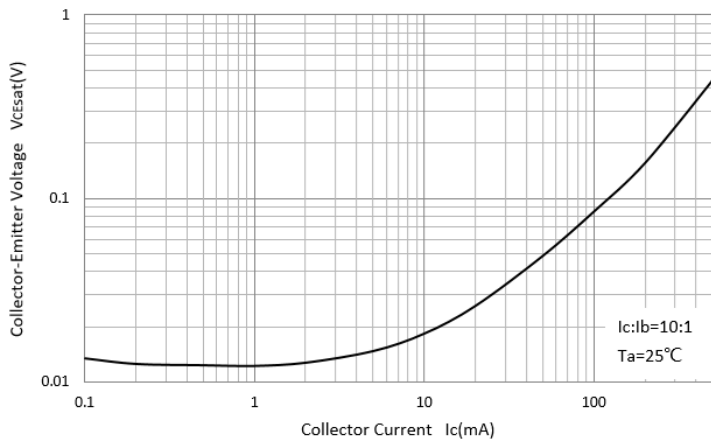
Static Characteristic



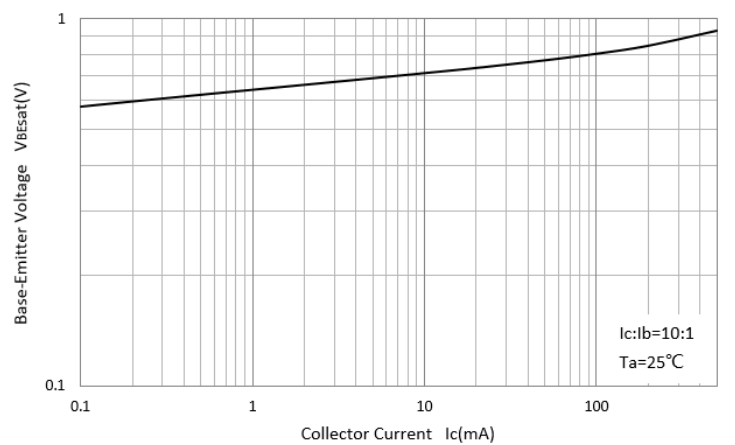
DC Current Gain



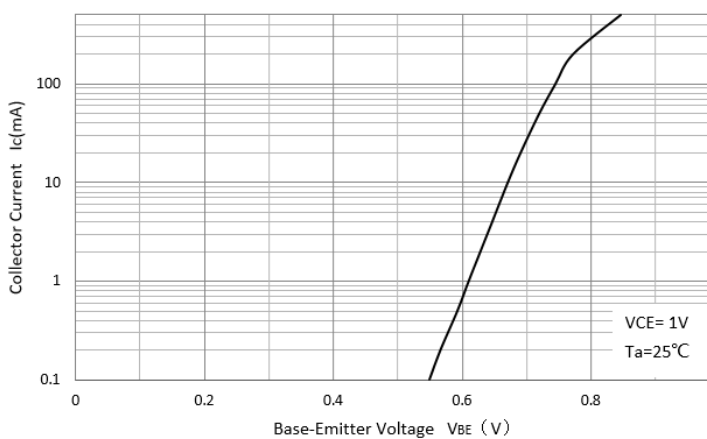
Collector-Emitter Saturation Voltage



Base-Emitter Saturation Voltage



Base-Emitter On Voltage



Cob/Cib-V_{CB}/V_{EB}

