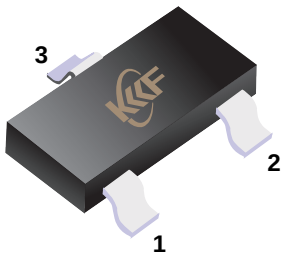
香港科范微半导体电子有限公司
HongKong KeFan Wei Semiconductor Electronics Co., Ltd.

2SC1015

PNP Transistors



1.Base
2.Emitter
3.Collector

Simplified outline(SOT-23)

Features

- High voltage and high current
  V_{CEO}:=-50V(min.),I_C=-150mA(max.)
- Low niose: NF=1dB(Typ.) at f=1KHz

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 to 150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C= -100 μ A, I_E=0	-50			V
Collector-emitter breakdown voltage	V_{CEO}	I_C= -0.1mA, I_B=0	-50			V
Emitter-base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-50V , I_E=0			-0.1	μ A
Collector cut-off current	I_{CEO}	V_{CE}= -50V , I_B=0			-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}=-6V, I_C= -2mA	130		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100 mA, I_B= -10mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-100 mA, I_B= -10mA			-1.1	V
Transition frequency	f_T	V_{CE}=-10V, I_C= -1mA,f=30MHz	80			MHz

h_{FE} Classification

Type	2SA1015-L	2SA1015-H
Range	130-200	200-400
Marking	BAL	BA

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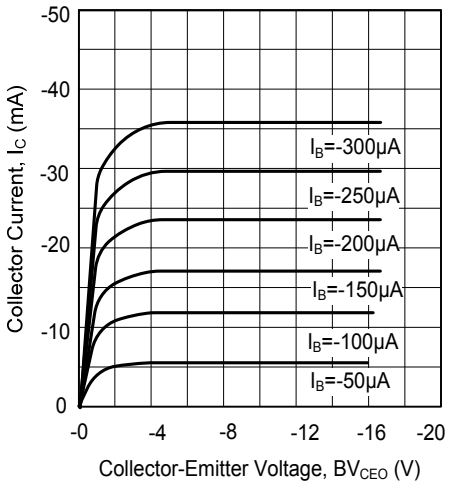
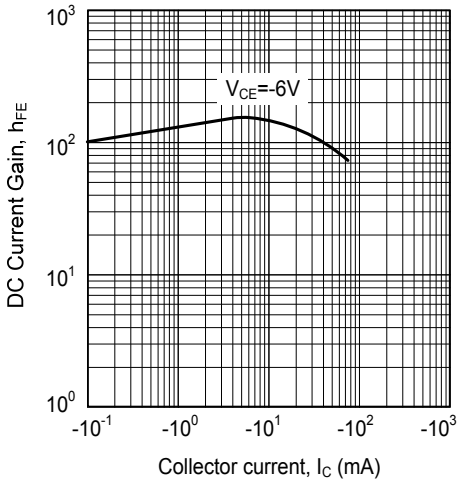
■ Typical Characterisitics

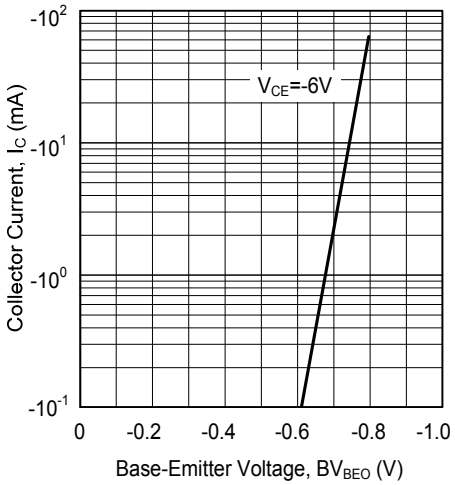
Static characteristics



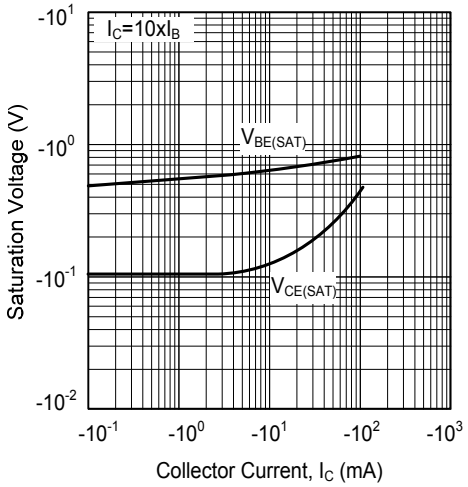
DC Current Gain



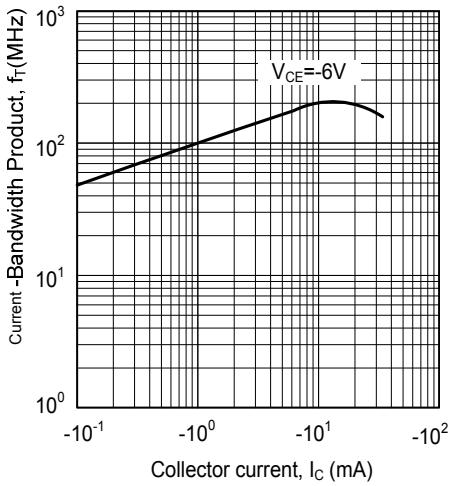
Base-Emitter on Voltage



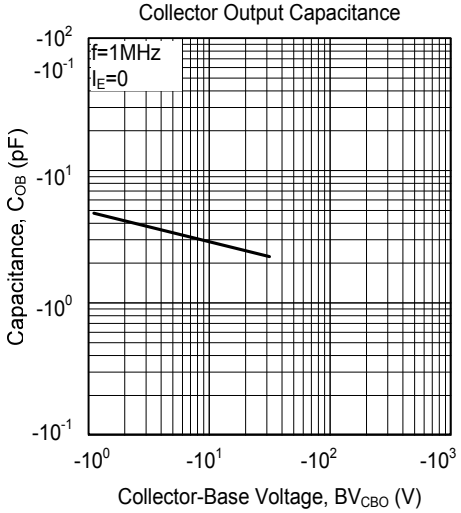
Saturation voltage



Current Gain-Bandwidth Product



Collector Output Capacitance



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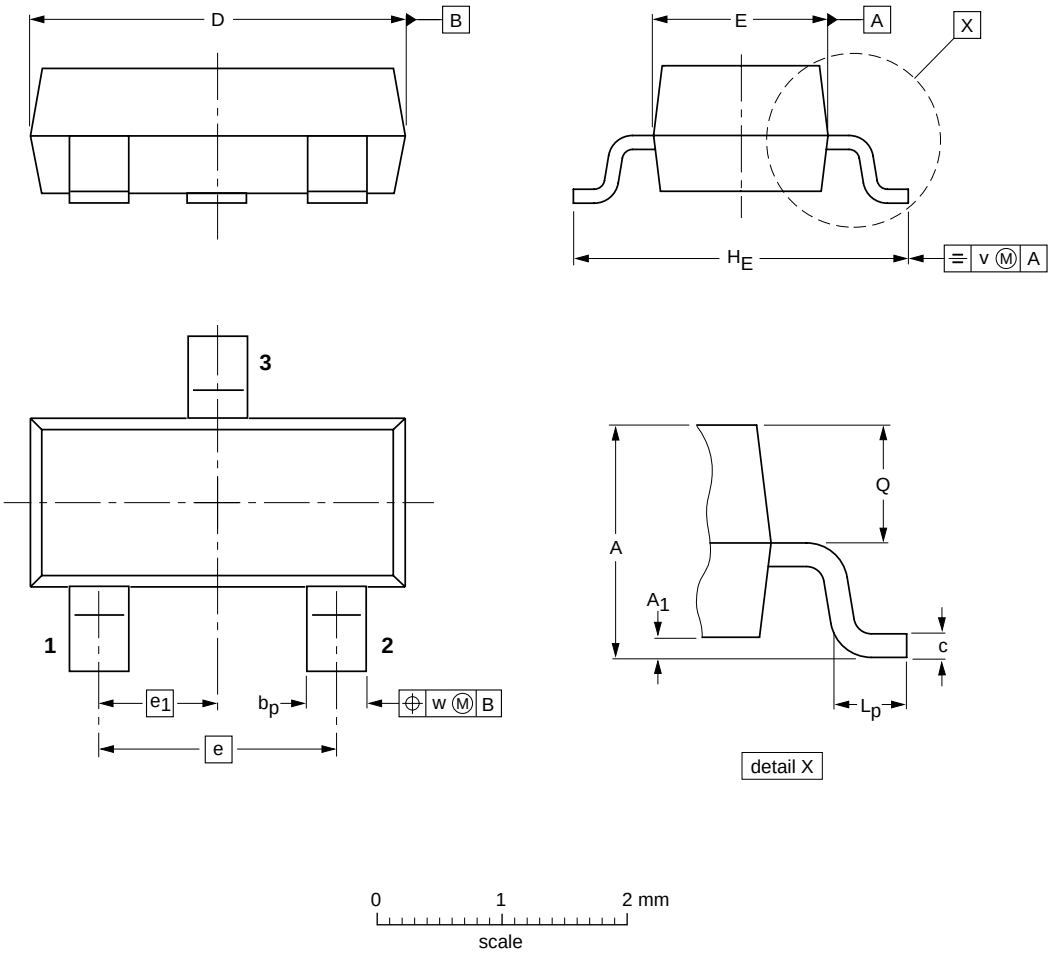
■ SOT-23



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