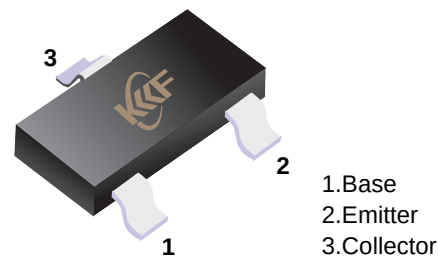


2SA1015

PNP Transistors

Features

- High voltage and high current
 $V_{CE0} = -50V(\text{min.}), I_C = -150mA(\text{max.})$
- Low noise: $NF = 1dB(\text{Typ.})$ at $f = 1KHz$



■ Simplified outline(SOT-23)

Absolute Maximum Ratings $T_a = 25^\circ C$

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	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	$^\circ C$

Electrical Characteristics $T_a = 25^\circ C$

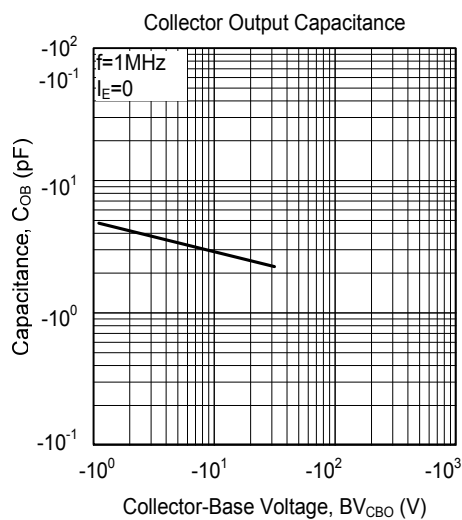
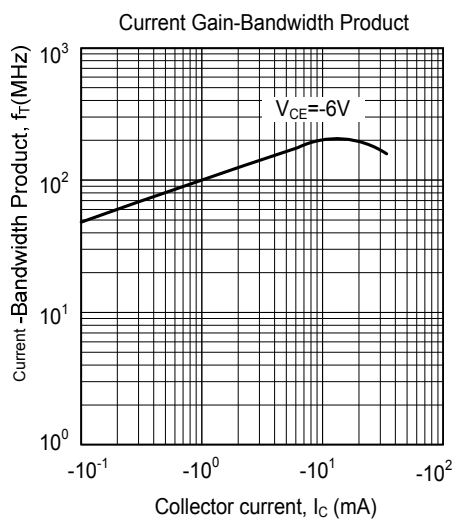
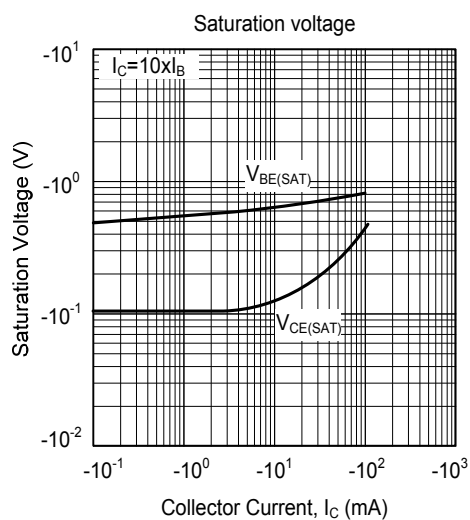
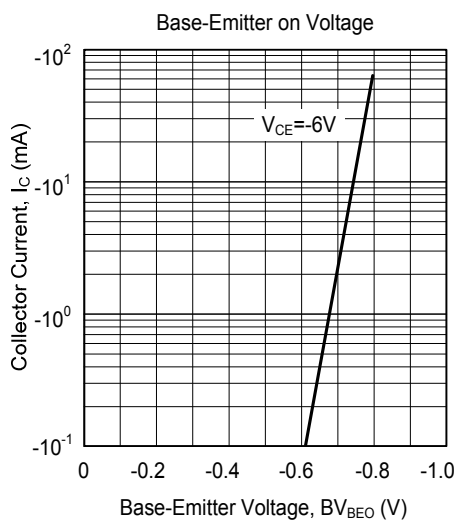
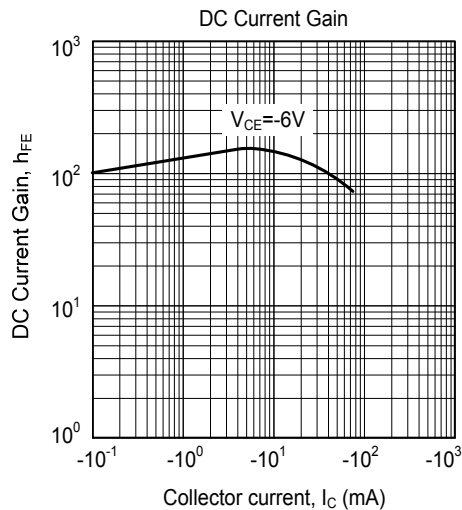
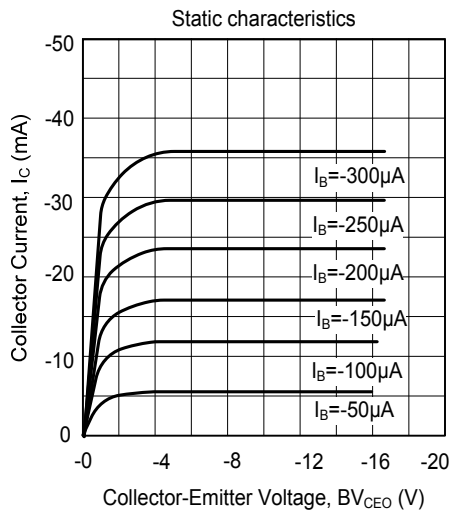
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -0.1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -2mA$	130		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -10mA$			-1.1	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

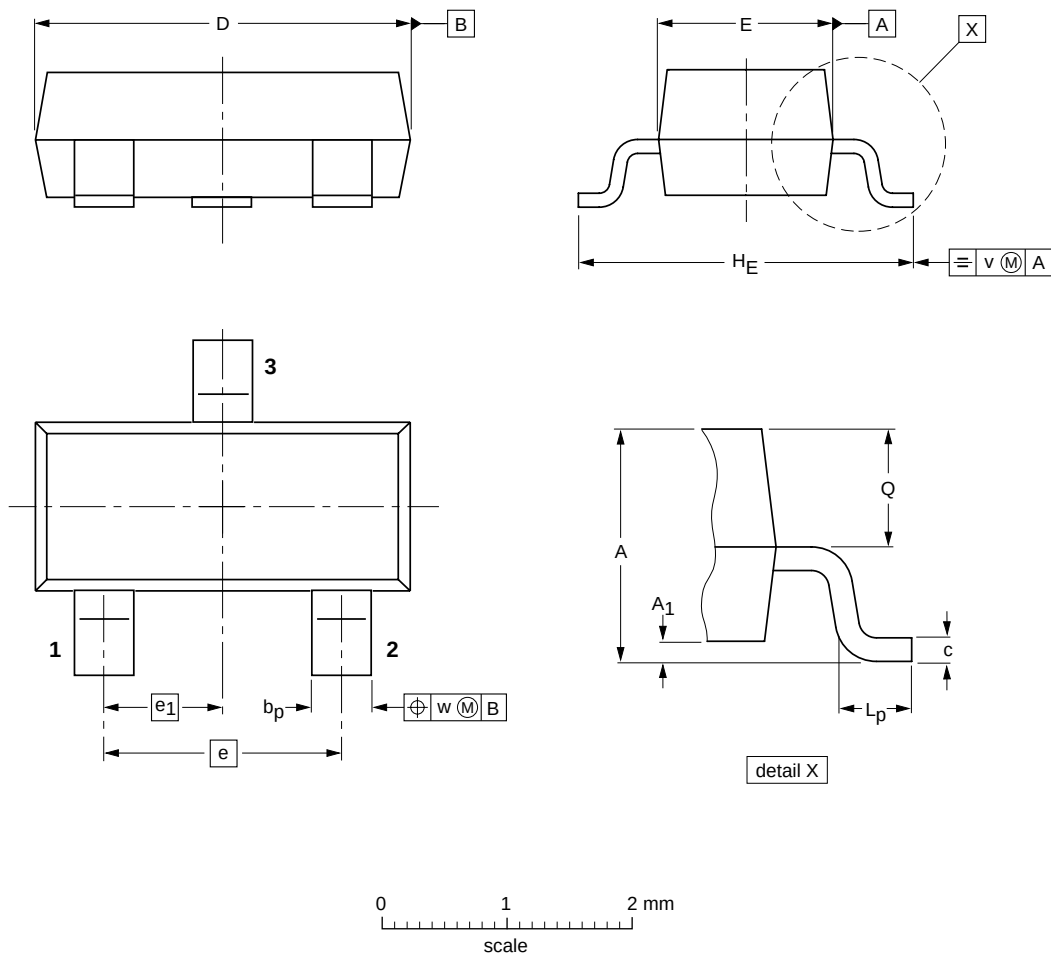
2SA1015

■ Typical Characteristics



2SA1015

■ 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