



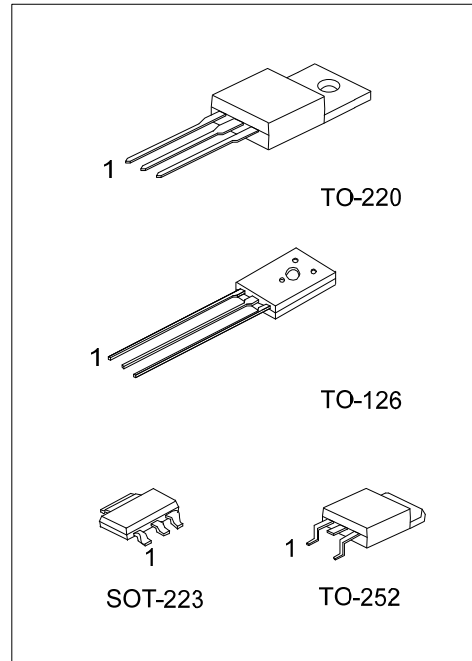
# 2SB1151

## PNP SILICON TRANSISTOR

LOW COLLECTOR  
SATURATION VOLTAGE  
LARGE CURRENT

■ FEATURES

- \*High Power Dissipation
- \*Complementary to 2SD1691



■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB1151L-x-AA3-R	2SB1151G-x-AA3-R	SOT-223	E	C	B	Tape Reel
2SB1151L-x-TA3-T	2SB1151G-x-TA3-T	TO-220	B	C	E	Tube
2SB1151L-x-T60-K	2SB1151G-x-T60-K	TO-126	E	C	B	Bulk
2SB1151L-x-TN3-R	2SB1151G-x-TN3-R	TO-252	B	C	E	Tape Reel


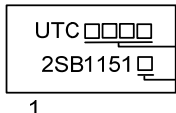
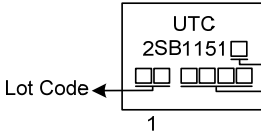
Note: Pin Assignment: E: Emitter    C: Collector    B: Base

<p>2SB1151G-x-AA3-R</p>	<p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel, T: Tube, K: Bulk (2) AA3: SOT-223, TA3: TO-220, TN3: TO-252 T60: TO-126 (3) x: refer to Classification of h<sub>FE2</sub> (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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# 2SB1151

## PNP SILICON TRANSISTOR

### MARKING

PACKAGE	MARKING
SOT-223	 <p>L: Lead Free G: Halogen Free Date Code</p>
TO-126	 <p>Date Code L: Lead Free G: Halogen Free</p>
TO-220 / TO-252	 <p>L: Lead Free G: Halogen Free Date Code Lot Code</p>

■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V <sub>CB0</sub>	-60	V
Collector-Emitter Voltage		V <sub>CEO</sub>	-60	V
Emitter-Base Voltage		V <sub>EBO</sub>	-7	V
Collector Current	DC	I <sub>C</sub>	-5	A
	Pulse(Note2)	I <sub>CP</sub>	-8	A
Base Current		I <sub>B</sub>	-1	A
Power Dissipation (T <sub>A</sub> =25°C)	SOT-223	P <sub>D</sub>	1	W
	TO-220		2	W
	TO-126		1.3	W
	TO-252			
Junction Temperature		T <sub>J</sub>	+150	°C
Storage Temperature		T <sub>STG</sub>	-55 ~ +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.  
 2. P<sub>W</sub> ≤ 10ms, Duty Cycle ≤ 50%.

■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, unless otherwise specified)

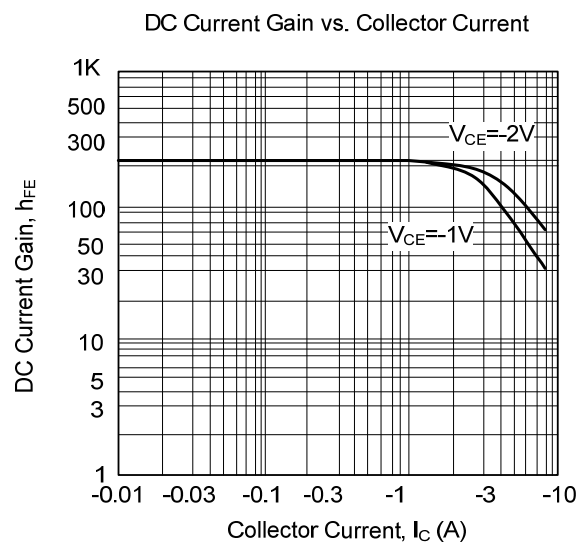
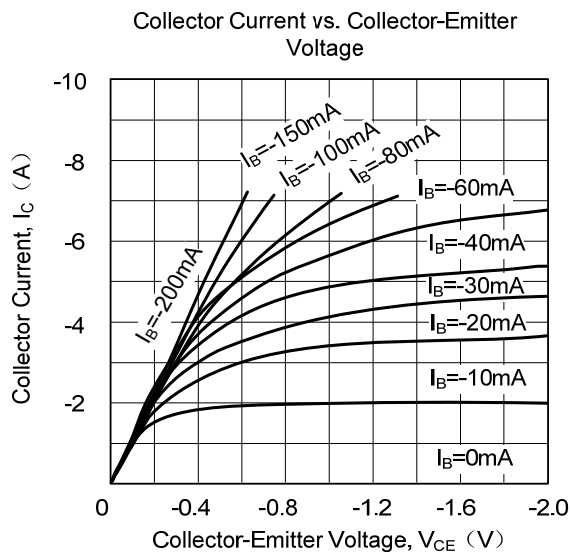
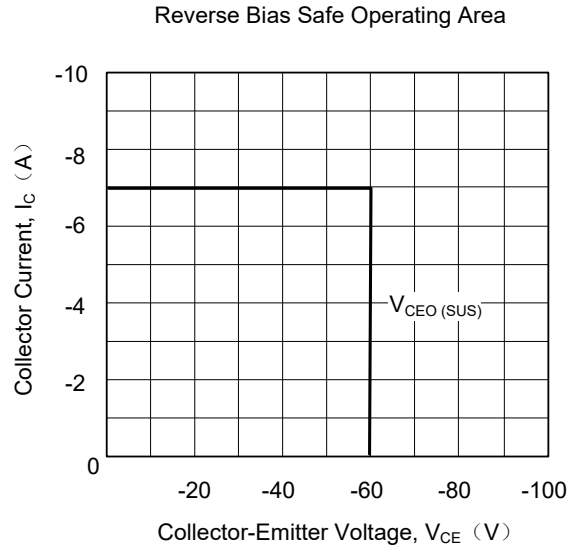
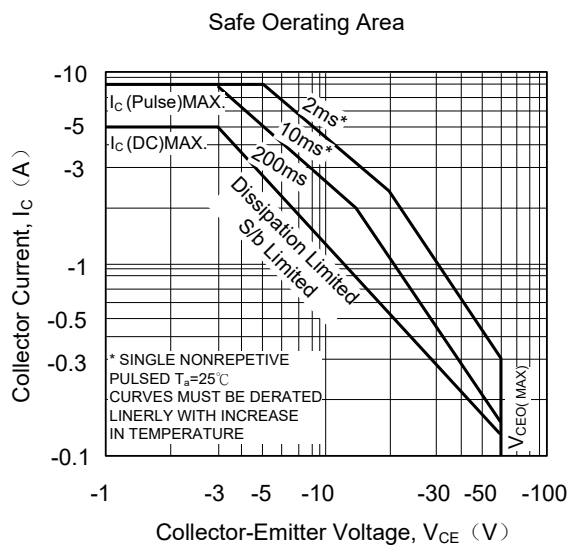
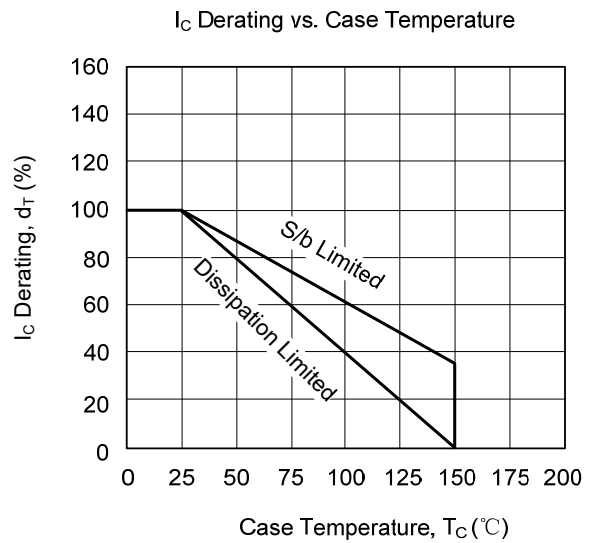
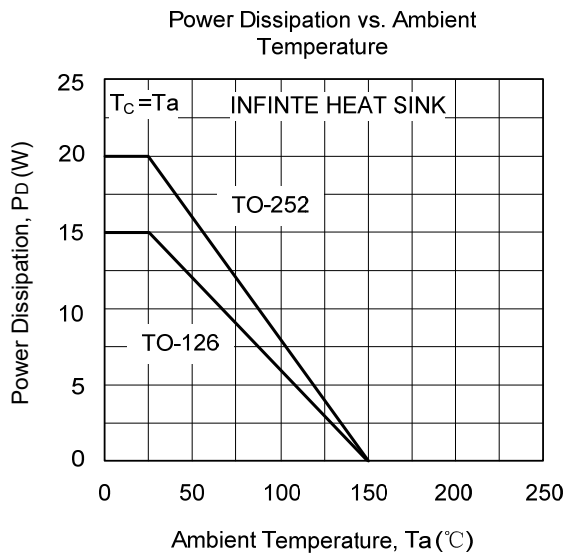
PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Voltage		BV <sub>CB0</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-60			V
Collector-Emitter Voltage		BV <sub>CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-60			V
Emitter-Base Voltage		BV <sub>EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-7			V
Collector Cut-off Current		I <sub>CB0</sub>	V <sub>CB</sub> =-50V, I <sub>E</sub> =0			-10	μA
Emitter Cut-off Current		I <sub>EBO</sub>	V <sub>EB</sub> =-7V, I <sub>C</sub> =0			-10	μA
Collector-Emitter Saturation Voltage		V <sub>CE(SAT)</sub>	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A		-0.14	-0.3	V
Base-Emitter Saturation Voltage		V <sub>BE(SAT)</sub>	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A		-0.9	-1.2	V
DC Current Gain		h <sub>FE1</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-0.1A	150			
		h <sub>FE2</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-2A	160		400	
		h <sub>FE3</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-5A	50			
Switching Time	Turn On Time	t <sub>ON</sub>	<p>20μsec -I<sub>B1</sub>=-I<sub>B2</sub>=0.2A DUTY CYCLE ≤ 1%</p>		0.15	1	μS
	Storage Time	t <sub>STG</sub>			0.78	2.5	μS
	Fall Time	t <sub>F</sub>			0.18	1	μS

Pulse test : P<sub>W</sub> ≤ 350 μS, Duty Cycles ≤ 2% Pulse.

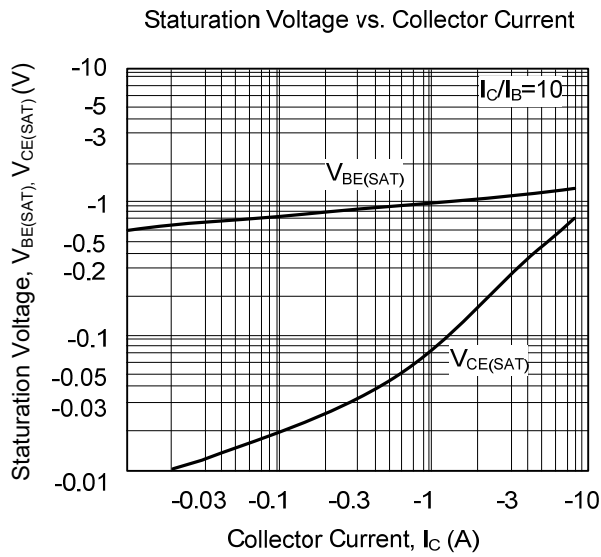
■ CLASSIFICATION OF h<sub>FE2</sub>

RANK	O	Y
RANGE	160 ~ 320	200 ~ 400

## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



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