



2SB1151

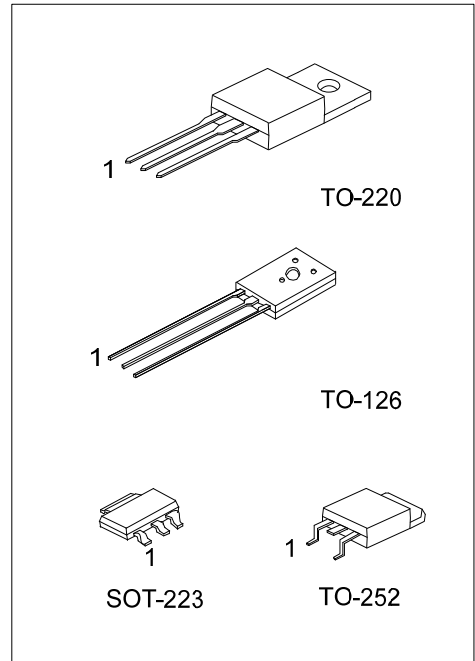
PNP SILICON TRANSISTOR

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


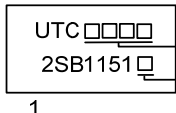
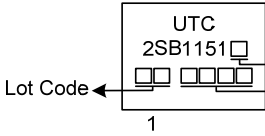
Note: Pin Assignment: E: Emitter C: Collector B: Base

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

2SB1151

PNP SILICON TRANSISTOR

MARKING

PACKAGE	MARKING
SOT-223	 <p>L: Lead Free G: Halogen Free Date Code</p> <p>1</p>
TO-126	 <p>Date Code L: Lead Free G: Halogen Free</p> <p>1</p>
TO-220 / TO-252	 <p>L: Lead Free G: Halogen Free Date Code</p> <p>Lot Code</p> <p>1</p>

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CB0}	-60	V
Collector-Emitter Voltage		V_{CEO}	-60	V
Emitter-Base Voltage		V_{EBO}	-7	V
Collector Current	DC	I_C	-5	A
	Pulse(Note2)	I_{CP}	-8	A
Base Current		I_B	-1	A
Power Dissipation ($T_A=25^\circ\text{C}$)	SOT-223	P_D	1	W
	TO-220		2	W
	TO-126		1.3	W
	TO-252			
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

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. $P_W \leq 10\text{ms}$, Duty Cycle $\leq 50\%$.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

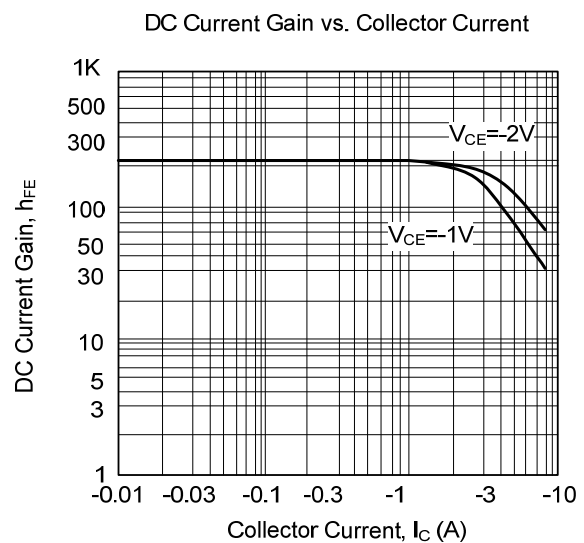
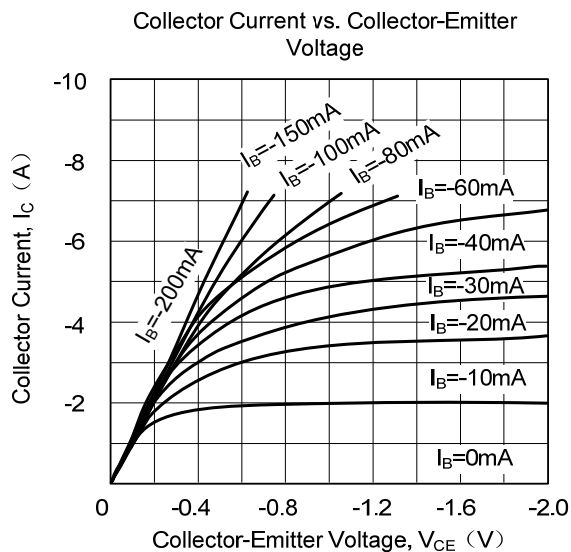
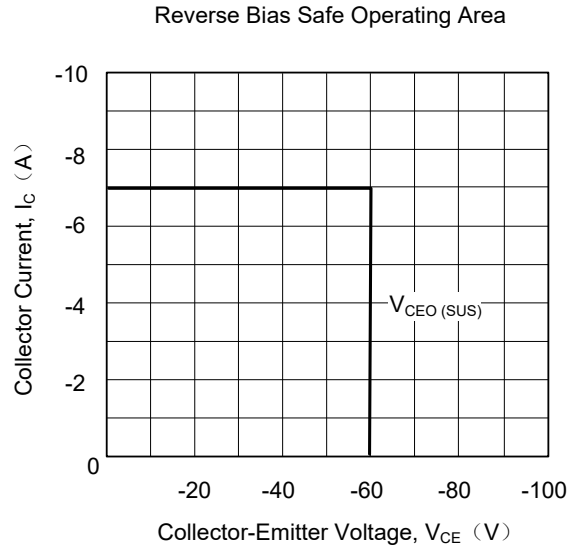
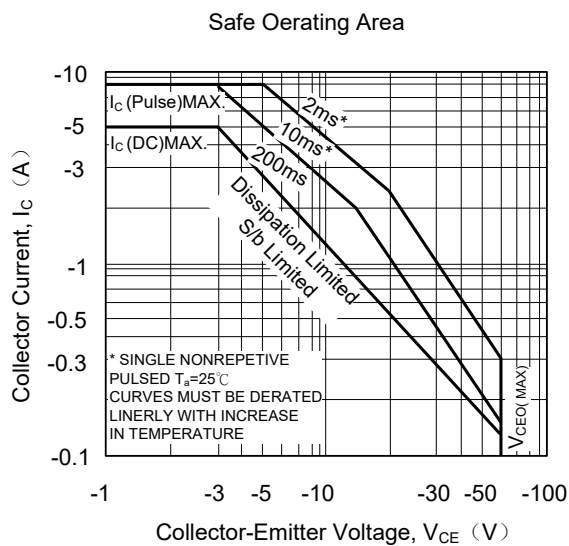
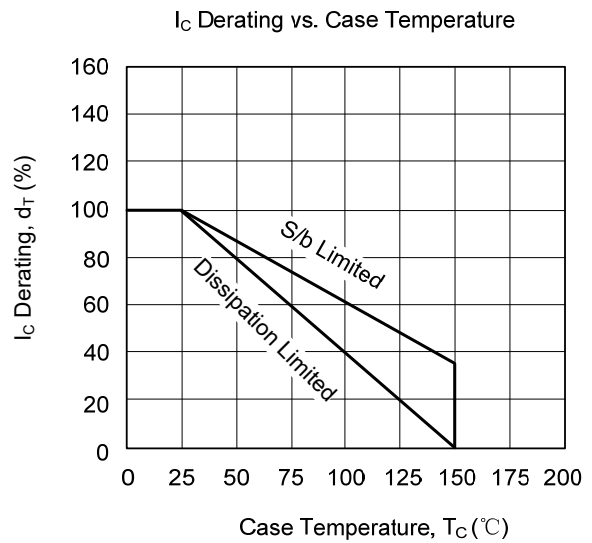
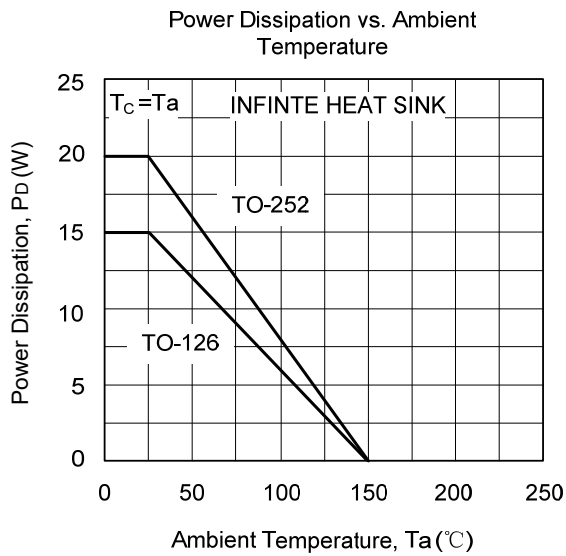
PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Voltage		BV_{CB0}	$I_C=-100\mu\text{A}$, $I_E=0$	-60			V
Collector-Emitter Voltage		BV_{CEO}	$I_C=-1\text{mA}$, $I_B=0$	-60			V
Emitter-Base Voltage		BV_{EBO}	$I_E=-100\mu\text{A}$, $I_C=0$	-7			V
Collector Cut-off Current		I_{CBO}	$V_{CB}=-50\text{V}$, $I_E=0$			-10	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=-7\text{V}$, $I_C=0$			-10	μA
Collector-Emitter Saturation Voltage		$V_{CE(SAT)}$	$I_C=-2\text{A}$, $I_B=-0.2\text{A}$		-0.14	-0.3	V
Base-Emitter Saturation Voltage		$V_{BE(SAT)}$	$I_C=-2\text{A}$, $I_B=-0.2\text{A}$		-0.9	-1.2	V
DC Current Gain		h_{FE1}	$V_{CE}=-1\text{V}$, $I_C=-0.1\text{A}$	150			
		h_{FE2}	$V_{CE}=-1\text{V}$, $I_C=-2\text{A}$	160		400	
		h_{FE3}	$V_{CE}=-2\text{V}$, $I_C=-5\text{A}$	50			
Switching Time	Turn On Time	t_{ON}	<p> $20\mu\text{sec}$ $-I_{B1}=-I_{B2}=0.2\text{A}$ DUTY CYCLE $\leq 1\%$ </p>		0.15	1	μS
	Storage Time	t_{STG}			0.78	2.5	μS
	Fall Time	t_F			0.18	1	μS

Pulse test : $P_W \leq 350 \mu\text{S}$, Duty Cycles $\leq 2\%$ Pulse.

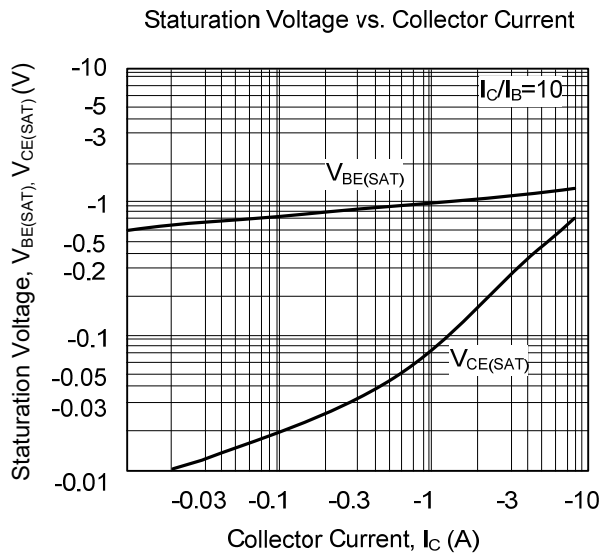
■ CLASSIFICATION OF h_{FE2}

RANK	O	Y
RANGE	160 ~ 320	200 ~ 400

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS (Cont.)



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.