



2SB1151

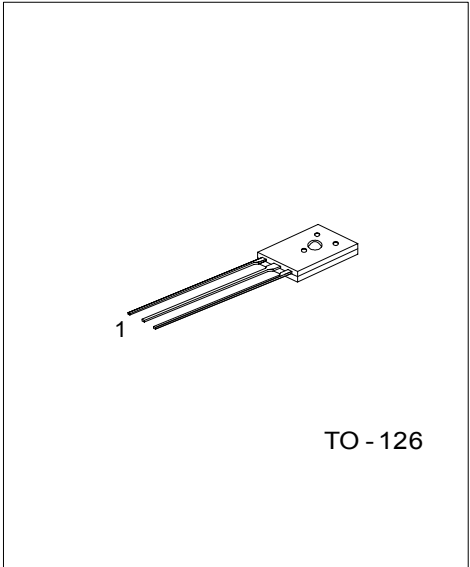
PNP EPITAXIAL SILICON TRANSISTOR

LOW COLLECTOR
SATURATION VOLTAGE
LARGE CURRENT

■ FEATURES

*High Power Dissipation : $P_D=1.5W(T_a=25^\circ C)$

*Complementary to 2SD1691.



TO - 126

*Pb-free plating product number: 2SB1151L

■ PIN CONFIGURATION

PIN NO.	PIN NAME
1	Emitter
2	Collector
3	Base

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead free		
2SB1151-T60-T	2SB1151L-T60-T	TO-126	Tube

■ ABSOLUTE MAXIMUM RATING (Ta=25)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-7	V
Collector Current	DC	I_C	-5
	Pulse(Note 3)	I_{CP}	-8
Base Current	I_B	-1	A
Power Dissipation	$T_a=25$	P_D	1.5
	$T_c=25$		20
Junction Temperature	T_J	125	□
Operating Temperature	T_{OPR}	0 ~ +70	□
Storage Temperature	T_{STG}	-40 ~ +150	□

Note 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

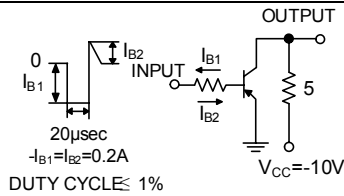
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. The device is guaranteed to meet performance specification within 0 ~ 70 operating temperature range and assured by design from -40 ~ 85 .

3. $P_W \leq 10ms$, Duty Cycle $\leq 50\%$

■ ELECTRICAL CHARACTERISTICS (Ta=25 , unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=-50V, I_E=0$			-10	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-7V, I_C=0$			-10	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-2A, I_B=-0.2A$		-0.14	-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2A, I_B=-0.2A$		-0.9	-1.2	V
DC Current Gain	h_{FE1}	$V_{CE}=-1V, I_C=-0.1A$	60			
	h_{FE2}	$V_{CE}=-1V, I_C=-2A$	160		400	
	h_{FE3}	$V_{CE}=-2V, I_C=-5A$	50			
Switching Time	Turn On Time	t_{ON}		0.15	1	μS
	Storage Time	t_{STG}		0.78	2.5	
	Fall Time	t_F		0.18	1	

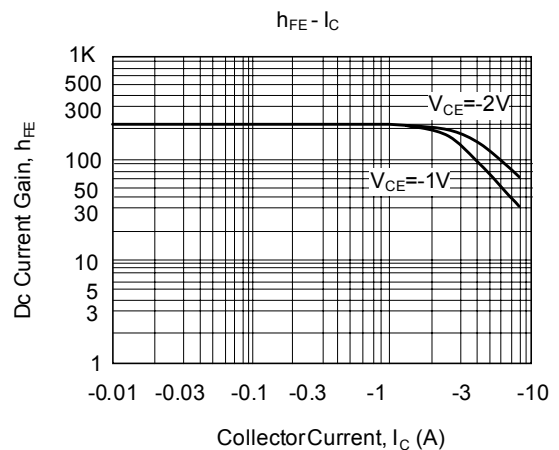
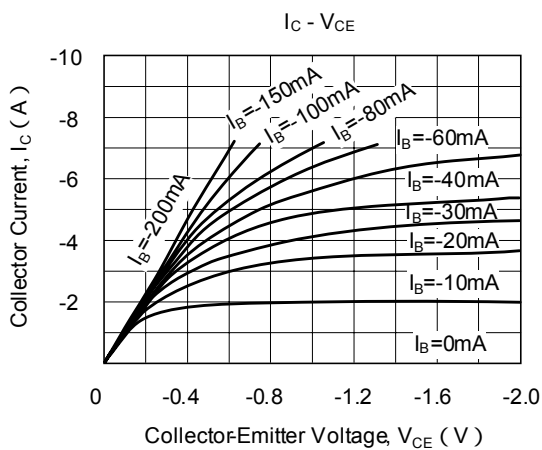
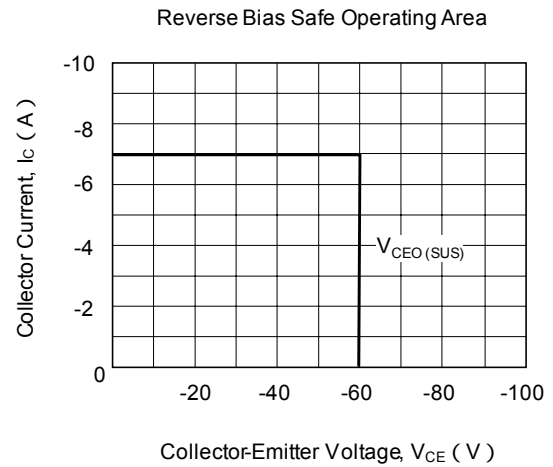
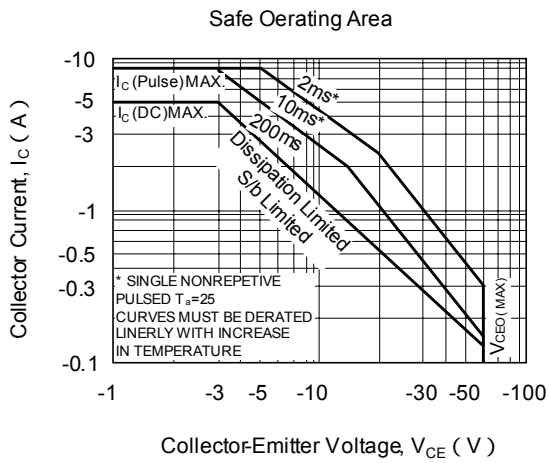
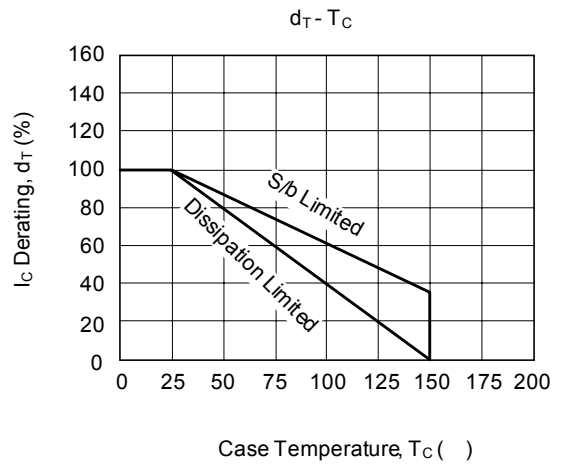
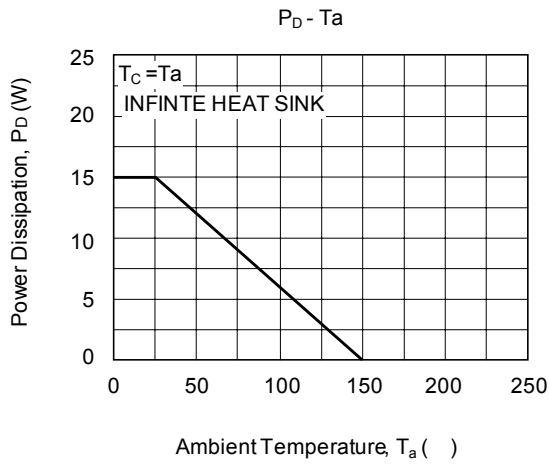


Pulse test : $P_W \leq 350 \mu S$, Duty Cycle $\leq 2\%$ Pulse

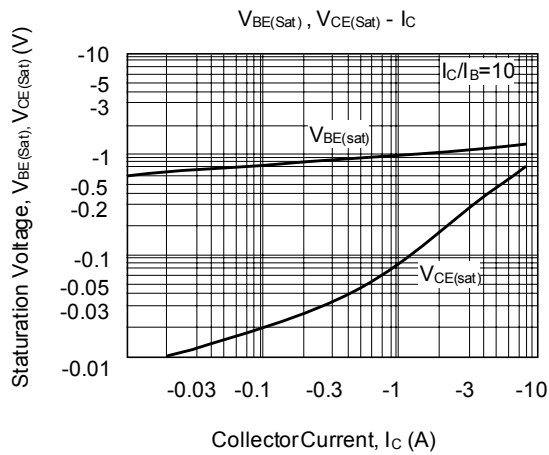
■ CLASSIFICATION OF h_{FE2}

RANK	O	Y
RANGE	160 ~ 320	200 ~ 400

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS



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