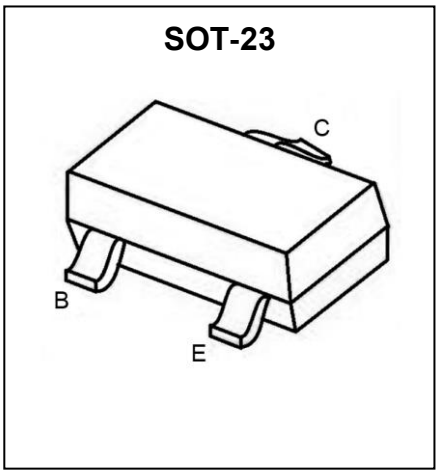
GP ELECTRONICS

GPB5551

GPB5551 Transistor(NPN)



Feature

- Switching Transistor

Marking: G1

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	0.6	A
Power Dissipation	P_d	0.3	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

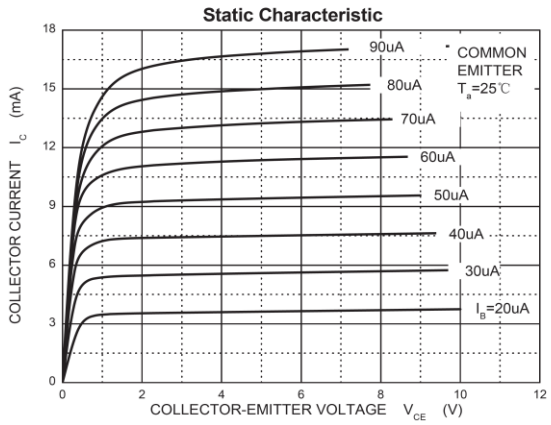
Classification of h_{FE3}

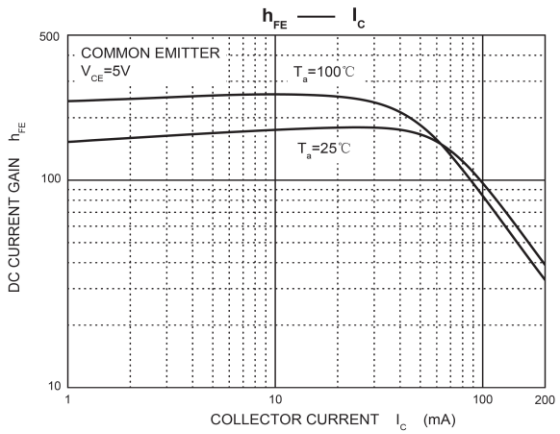
Rank	L	H
Range	100-200	200-300

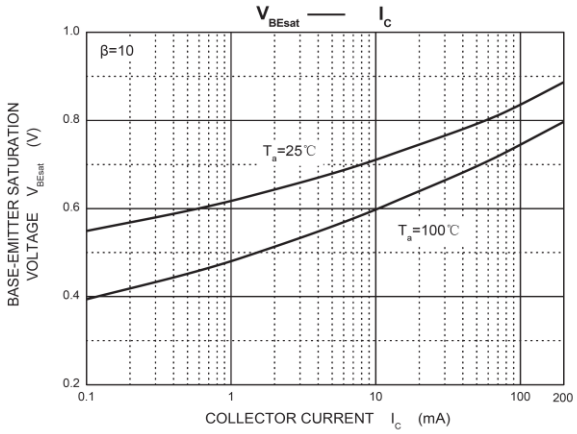
ELECTRICAL CHARACTERISTICS(T_A=25℃ unless otherwise noted)

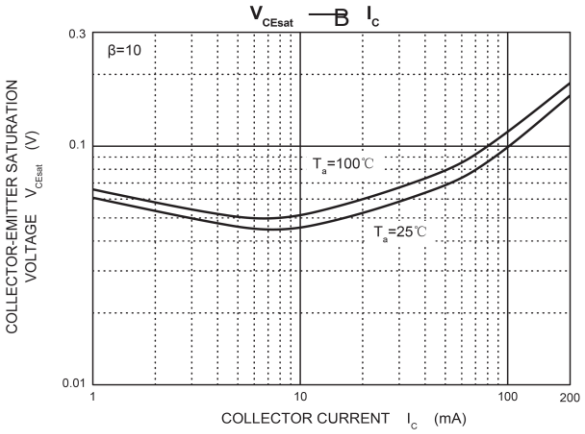
Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 100μA ,I_E = 0	180		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 1mA , I_B = 0	160		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 100μA,I_C = 0	5		V
Collector Cut-Off Current	I_{CBO}	V_{CB} = 150V, I_E = 0		0.1	μA
Collector Cut-Off Current	I_{CEO}	V_{CE} = 150V, I_B = 0		0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB} = 4V, I_C = 0		0.1	μA
DC Current Gain	h_{FE1}	V_{CE} = 5V, I_C = 0.1mA	10		
	h_{FE2}	V_{CE} = 5V, I_C = 1mA	10		
	h_{FE3}	V_{CE} = 5V, I_C = 10mA	100	300	
	h_{FE4}	V_{CE} = 5V, I_C = 50mA	40		
	h_{FE5}	V_{CE} = 5V, I_C = 100mA	30		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 10mA, I_B = 1mA		0.2	V
		I_C = 50mA, I_B = 5mA		0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 10mA, I_B = 1mA		1.1	V
		I_C = 50mA, I_B = 5mA		1.2	V
Transition Frequency	f_T	V_{CE} = 6V, I_C = 10mA, f = 100MHz	100		MHZ
Input Capacitance	C_{IB}	V_{CB} = 6V,I_E = 0,f = 1MHz		4.0	pF
Out Capacitance	C_{OB}	V_{EB} = 0.5V,I_C = 0,f = 1MHz		8.0	pF

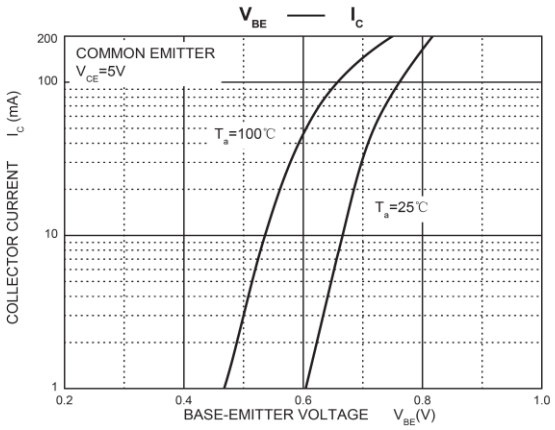
Typical Characteristics

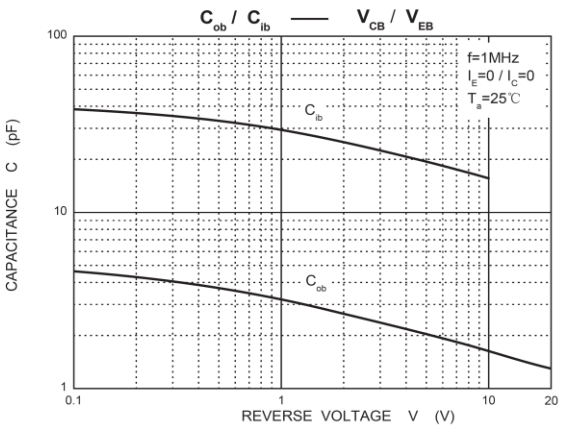


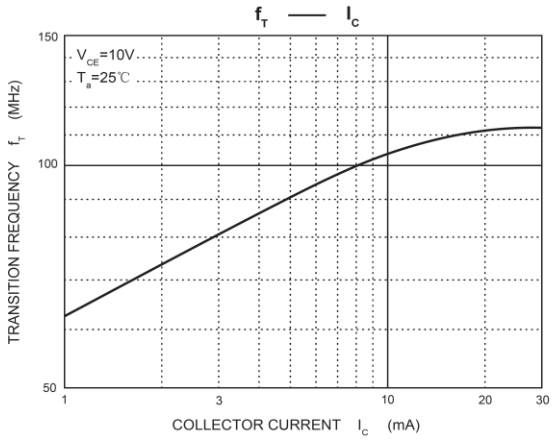


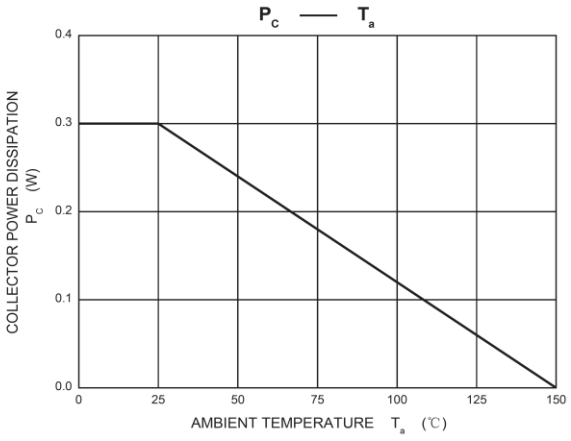




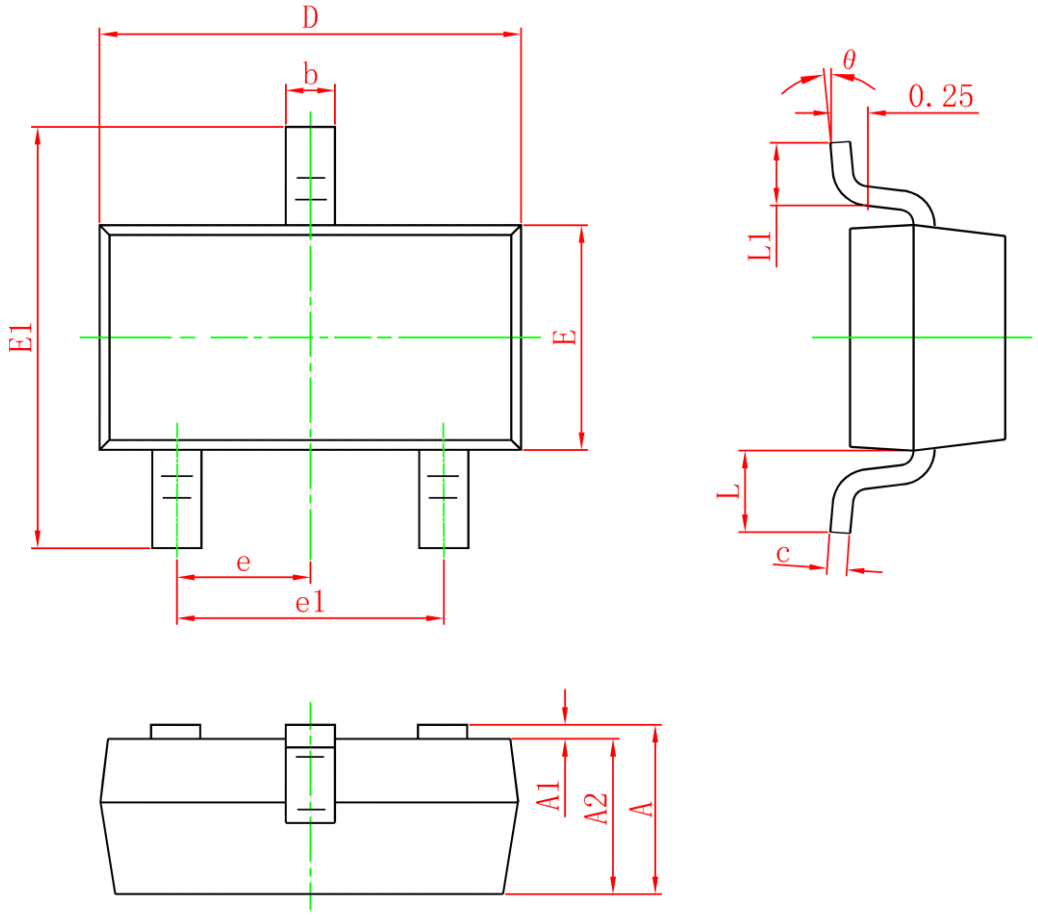








SOT-23 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0	0.100	0	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.150	1.500	0.045	0.059
E1	2.250	2.650	0.089	0.104
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Attention：

- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
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