



S8050WGx

NPN TRANSISTOR

FEATURES

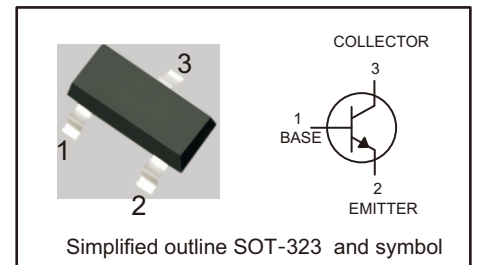
- Complimentary to S8550WGx
- Collector Current: $I_C=0.5A$

CLASSIFICATION OF h_{FE}

Rank	L	H	J
Range	120-200	200-350	300-400

PINNING

PIN	DESCRIPTION
1	BASE
2	EMITTER
3	COLLECTOR



MAXIMUM RATINGS ($T_a = 25^\circ C$ unless otherwise noted)

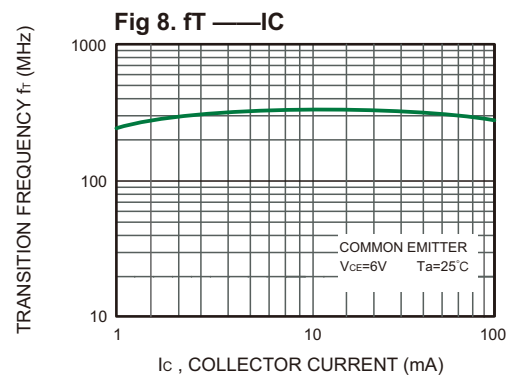
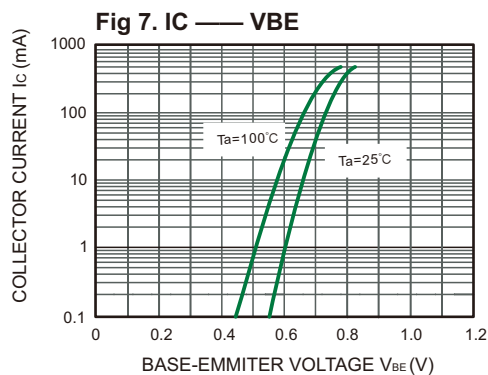
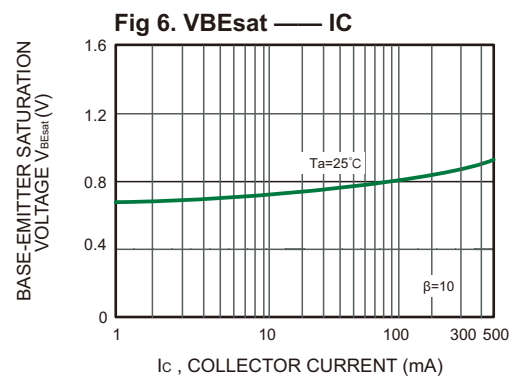
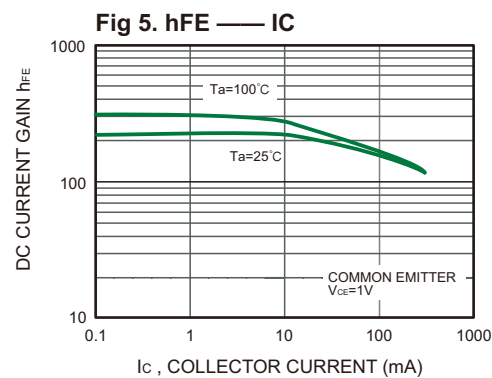
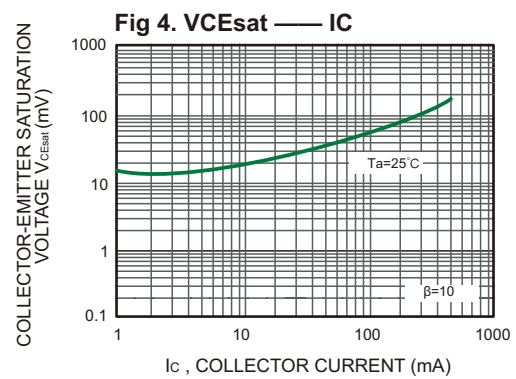
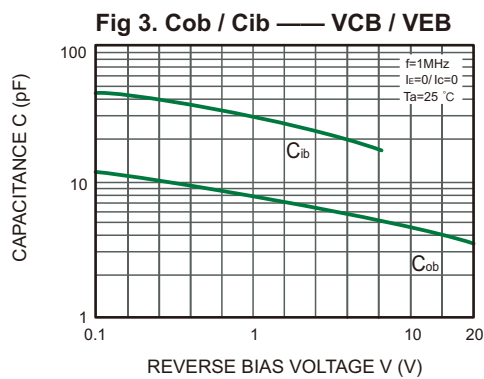
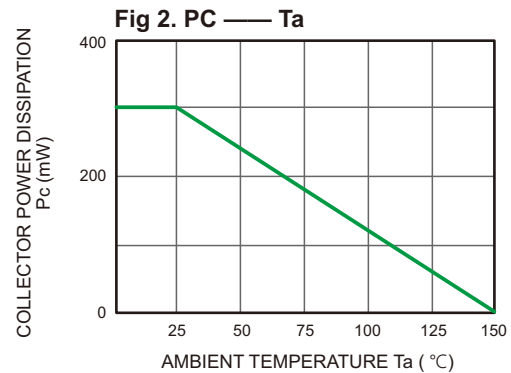
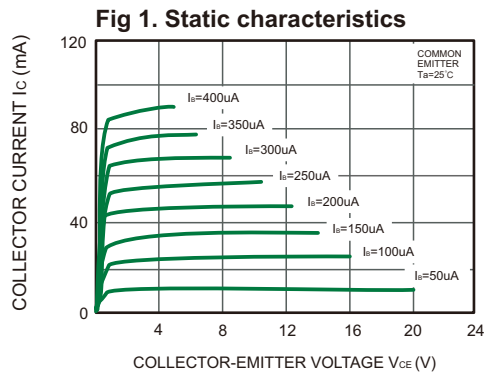
Parameter	Symbol	Value	Unit
Collector–Base Voltage	V_{CBO}	40	V
Collector–Emitter Voltage	V_{CEO}	25	V
Emitter–Base Voltage	V_{EBO}	5	V
Collector Current — Continuous	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	417	$^\circ C/W$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~ +150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 0.1mA, I_E = 0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 0.1mA, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			100	nA
Collector cut-off current	I_{CEO}	$V_{CE} = 20V, I_B = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1V, I_C = 50mA$	120		400	
	$h_{FE(2)}$	$V_{CE} = 1V, I_C = 500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 6V, I_C = 20mA, f = 30MHz$	150			MHz

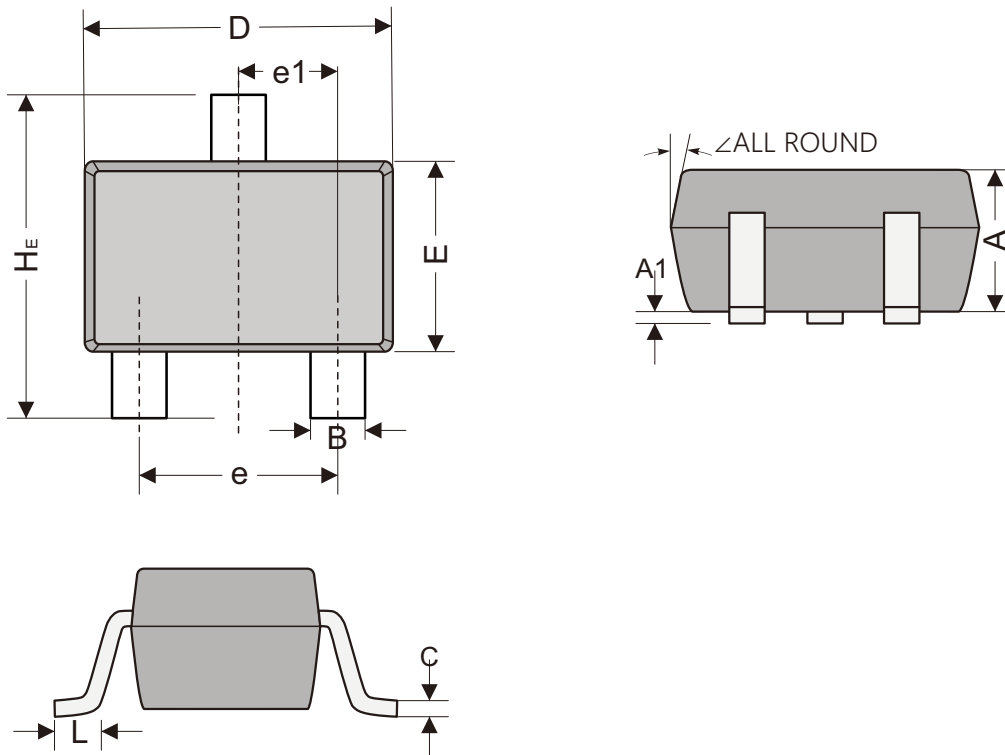


TYPICAL CHARACTERISTICS





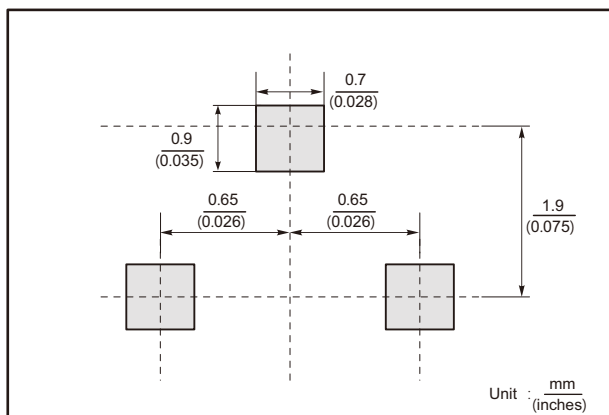
SOT-323 Package Outline Dimensions



SOT-323 mechanical data

UNIT		A	A1	B	C	D	E	e	e1	L	HE
mm	max	1.00	0.10	0.40	0.25	2.20	1.35	1.40	0.65 (BSC)	0.425 REF	2.40
	min	0.80	0.00	0.30	0.10	1.80	1.15	1.20			2.00
mil	max	39.37	3.94	15.75	9.84	86.61	53.15	55.12	25.59 (BSC)	16.73 REF	94.49
	min	31.50	0.00	11.81	3.94	70.87	45.28	47.24			78.74

The recommended mounting pad size



Marking

Type number	Marking code
S8050WGL	J3Y
S8050WGH	
S8050WGJ	



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