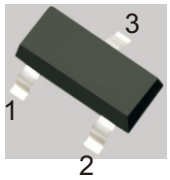
SS8050WGx

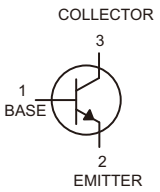
NPN TRANSISTOR

FEATURES
- Complimentary to SS8550WGx

PINNING

PIN	DESCRIPTION
1	BASE
2	EMITTER
3	COLLECTOR





Simplified outline SOT-323 and symbol

CLASSIFICATION OF h_{FE}

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

MAXIMUM RATINGS (Ta=25℃ 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	1.5	A
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	R_{thJA}	417	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100uA, I_E = 0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 0.1 mA, I_B = 0	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 100uA, I_C = 0	5			V
Collector cut-o ffcurrent	I_{CBO}	V_{CB} = 40V, I_E = 0			0.1	uA
Collector cut-o ffcurrent	I_{CEO}	V_{CE} = 20V, I_E=0			0.1	uA
Emitter cut-o ffcurrent	I_{EBO}	V_{EB} = 5V, I_C =0			0.1	uA
DC current gain	h_{FE1}	V_{CE} = 1V, I_C = 100mA	120		400	
	h_{FE2}	V_{CE} = 1V, I_C = 800mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 800mA, I_B = 80mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 800mA, I_B=80mA			1.2	V
Transition frequency	f_T	V_{CE} = 10V, I_C = 50mA, f=30MHz	100			MHz

TYPICAL CHARACTERICS

Fig.1 Static characteristics

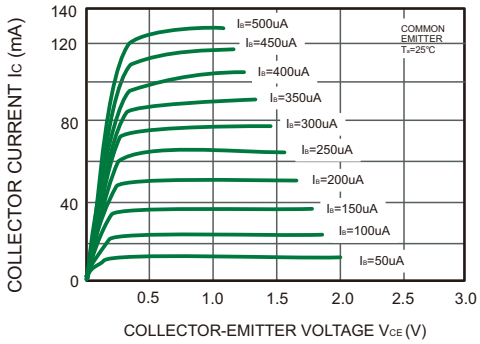


Fig.2 Pc —— Ta

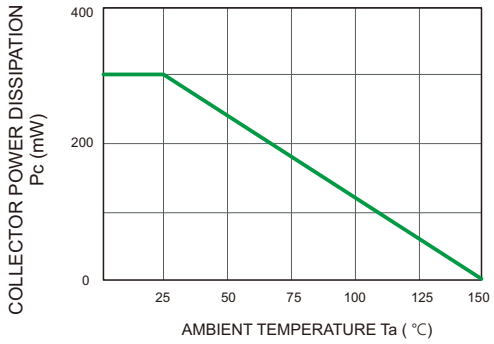


Fig.3 Cob / Cib —— VCB / VEB

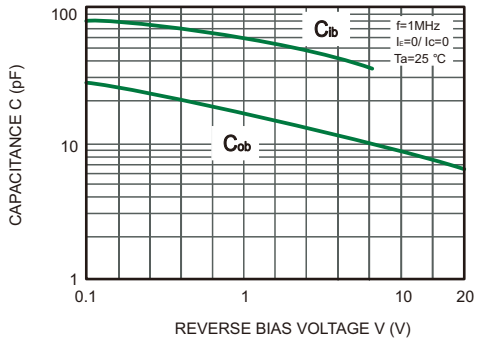


Fig.4 VCEsat —— Ic

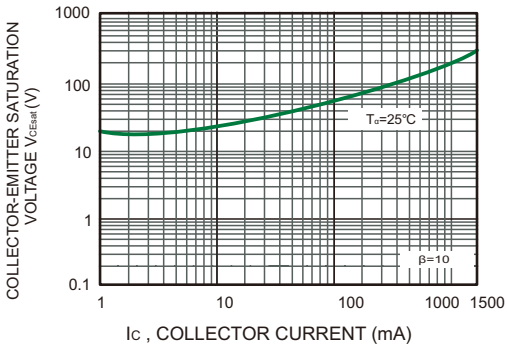


Fig.5 hFE–Ic

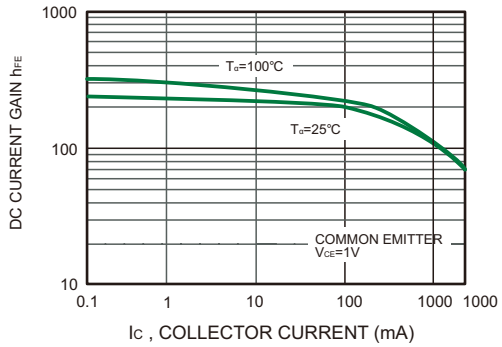


Fig.6 VBEsat —— Ic

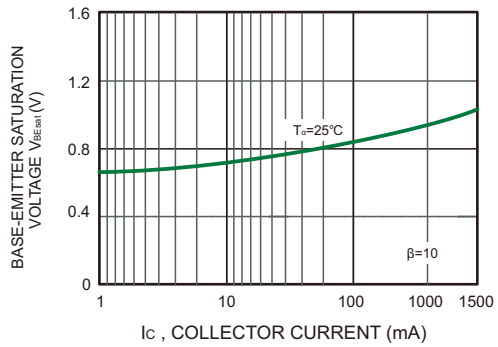


Fig.7 Ic —— VBE

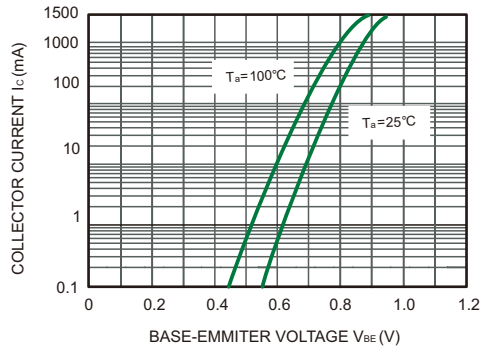
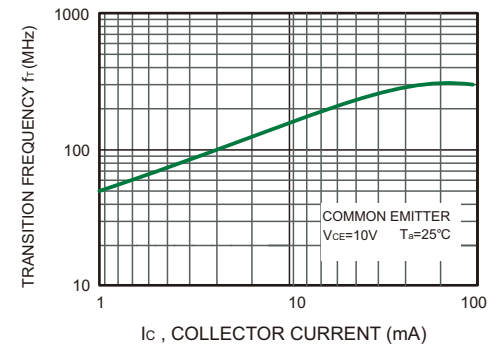
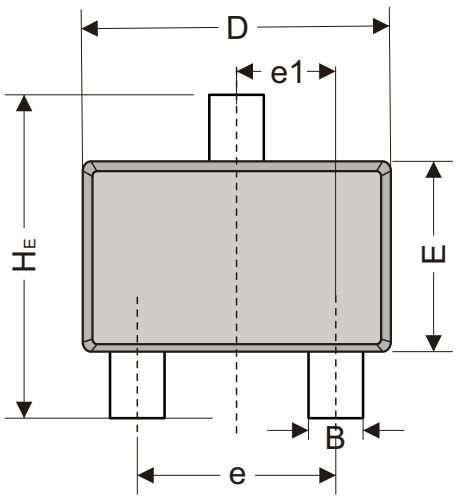
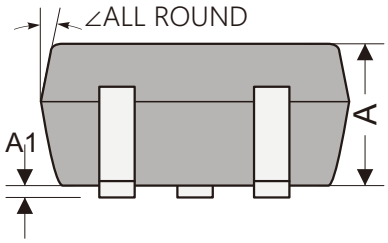


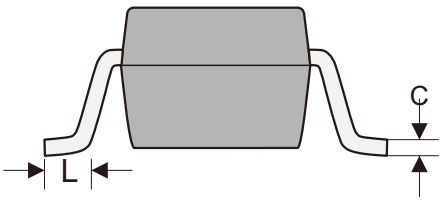
Fig.8 fT ——Ic



SOT-323 Package Outline Dimensions



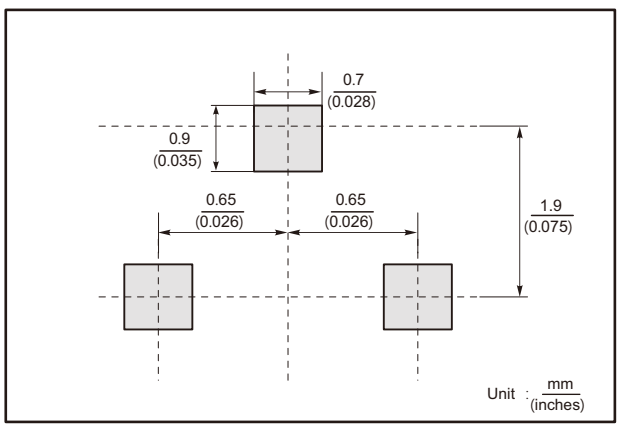




SOT-323 mechanical data

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	2.40
	min	0.80	0.00	0.30	0.10	1.80	1.15	1.20		REF	2.00
mil	max	39.37	3.94	15.75	9.84	86.61	53.15	55.12	25.59 (BSC)	16.73	94.49
	min	31.50	0.00	11.81	3.94	70.87	45.28	47.24		REF	78.74

The recommended mounting pad size



Marking

Type number	Marking code
SS8050WGL	Y1
SS8050WGH	
SS8050WGJ	

Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any time without notice.
Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.