

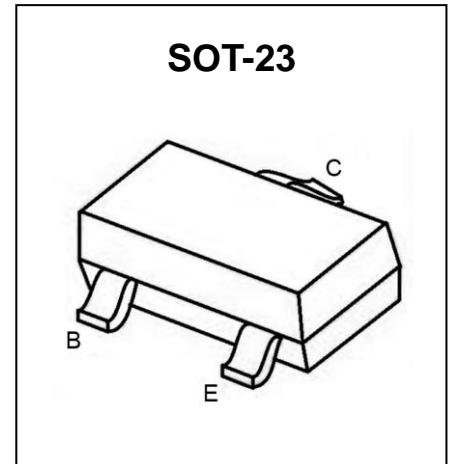
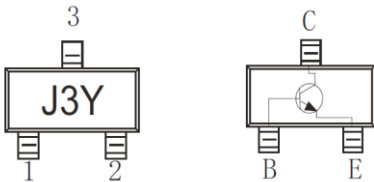


S8050 Transistor(NPN)

Feature

- Good current characters
- Small saturable voltage drop
- High Breakdown voltage

Marking:



Classification of h_{FE} :

Rank	L	H
Range	120-200	200-350

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

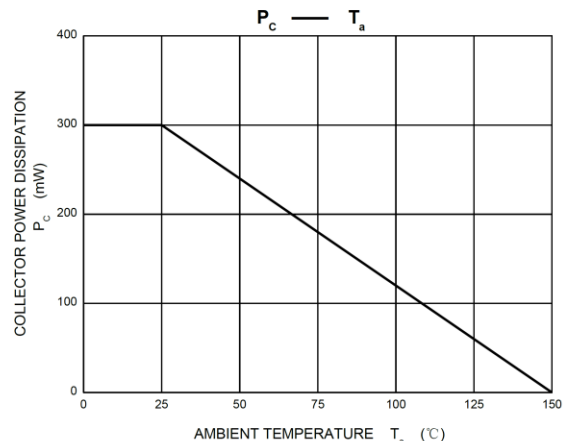
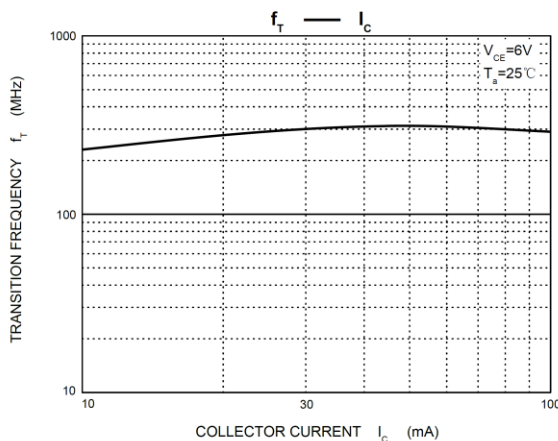
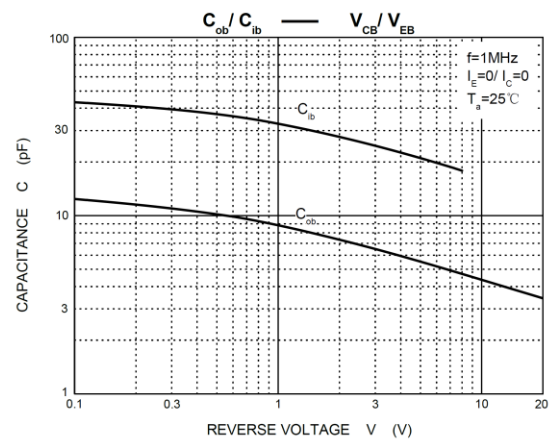
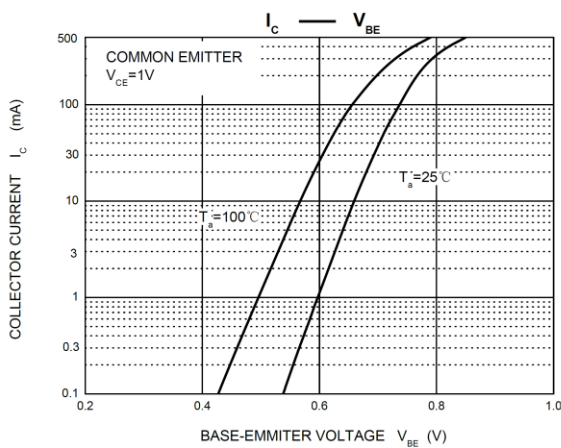
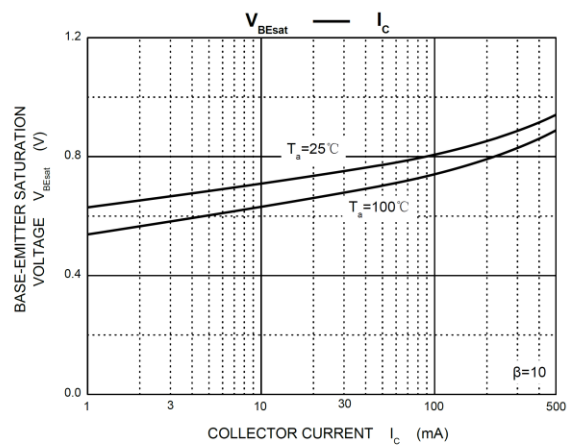
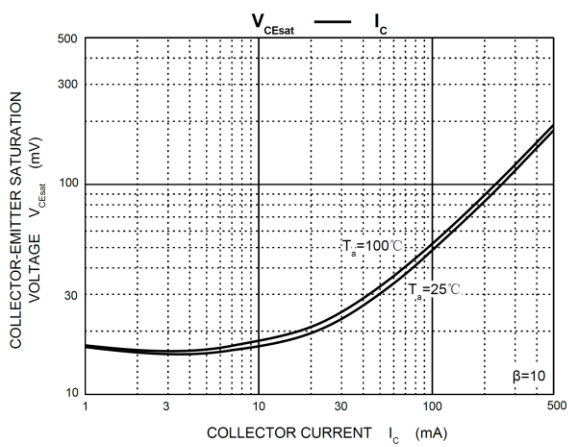
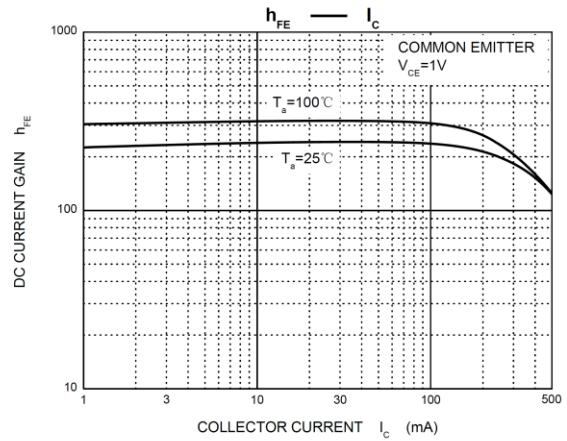
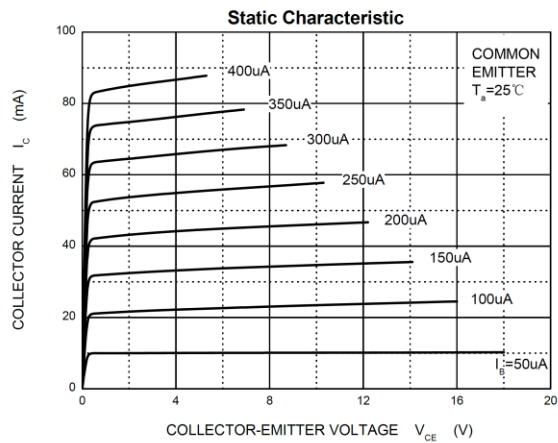
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	25	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current -Continuous	I_C	0.5	A
Power Dissipation	P_d	0.3	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

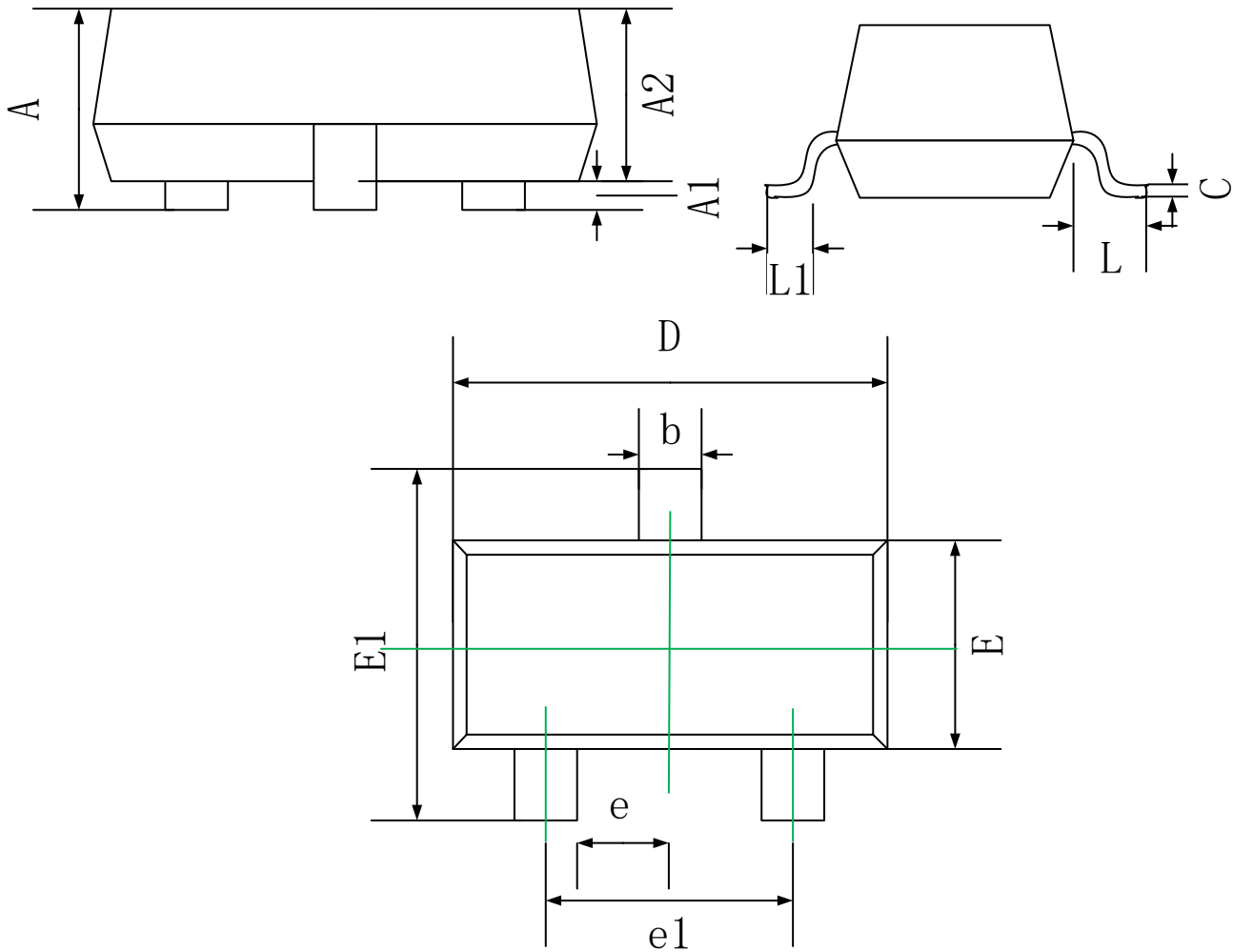
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _c =100μA, 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 =100μA, 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}	V _{CE} =1V, I _c =0.1mA	40		
		V _{CE} =1V, I _c =1mA	70		
		V _{CE} =1V, I _c =50mA	100	400	
		V _{CE} =1V, I _c =100mA	60		
		V _{CE} =1V, I _c =500mA	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =100mA, I _B =10mA		0.5	V
		I _c =500mA, I _B =50mA		0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c =100mA, I _B =10mA		1.1	V
		I _c =500mA, I _B =50mA		1.2	V
Transition frequency	f _T	V _{CE} = 6V, I _c =20mA, f=30MHz	150		MHZ
Input Capacitance	C _{IB}	V _{CB} = 5V, I _E =0, f=1MHz		4.0	pF
Output Capacitance	C _{OB}	V _{EB} = 0.5V, I _c =0, f=1MHz		8.0	pF
Delay Time	t _d	V _{CC} =3V, V _{BE} =-0.5V, I _C =10mA, I _B =1.0mA		35	nS
Rise Time	t _r			35	nS
Storage Time	t _s			200	nS
Fall Time	t _f	V _{CC} =3V, V _{BE} =-0.5V, I _{B1} =I _{B2} =1.0mA		50	nS

*Pulse Test : Pulse width<300Us , Duty Cycle < 2.0%.

Typical Characteristics



SOT-23 Package Information


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50