

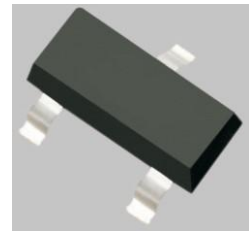
S8050L/H/J

NPN Transistor

Features

- ◆ Complementary to S8550
- ◆ Collector Current: $I_C=0.5A$

SOT-23



Marking: J3Y

Absolute Maximum Ratings ($T_A=25^{\circ}C$, unless otherwise noted)

1 Base 2. Emitter 3. Collector

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	I_C	0.5	A
Power Dissipation	P_C	0.3	W
Thermal Resistance From Junction To Ambient	R_{thJA}	417	$^{\circ}C/W$
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^{\circ}C$

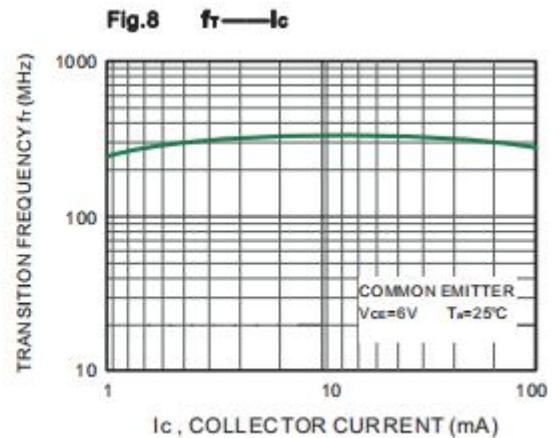
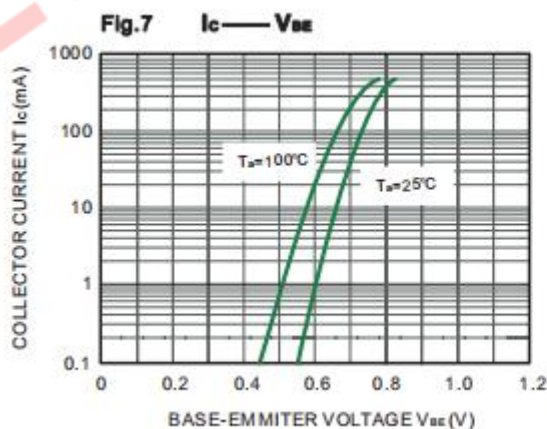
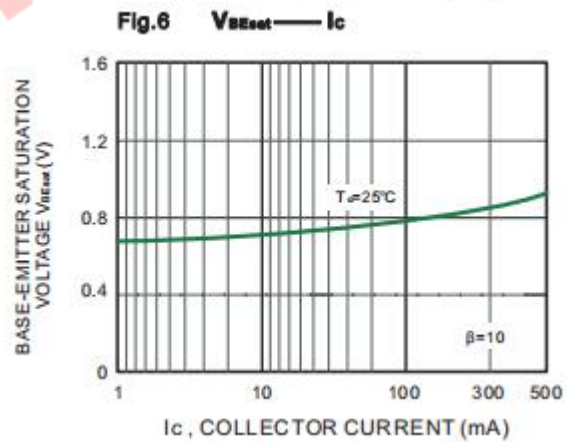
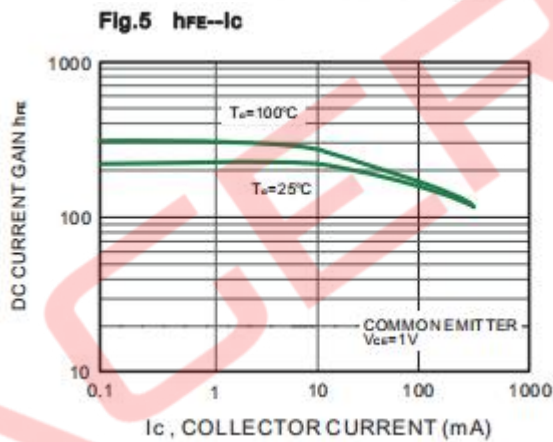
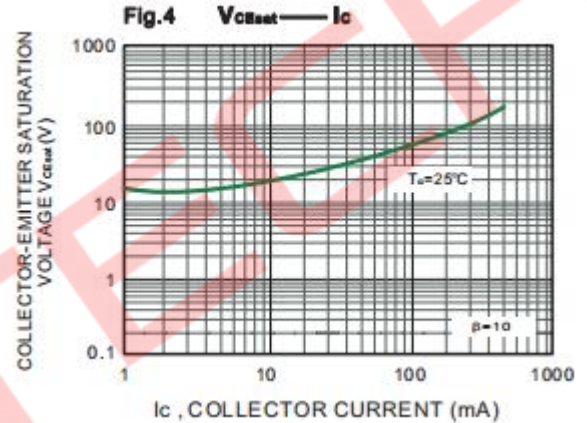
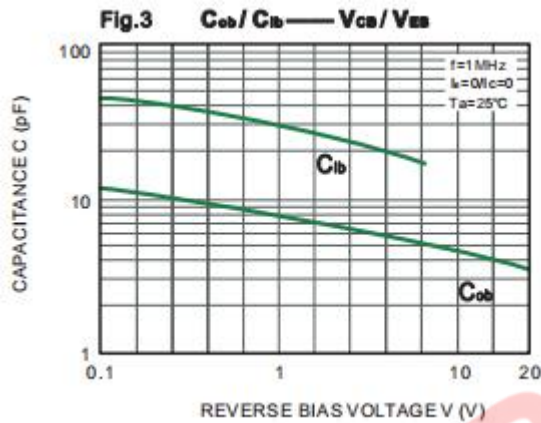
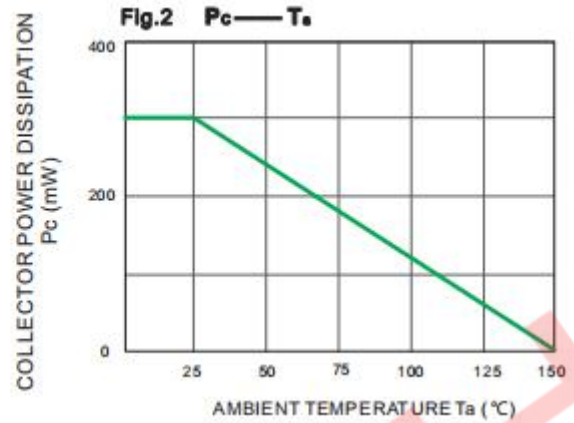
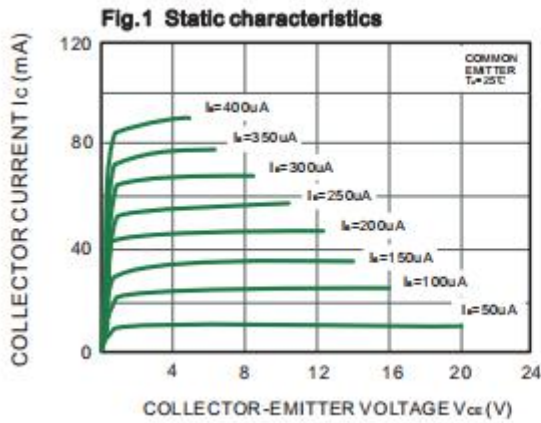
Electrical Characteristics ($T_A=25^{\circ}C$, unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=40V, I_E=0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			100	nA
Collector cut-off current	I_{CEO}	$V_{CE}=20V, I_B=0$			100	nA
DC current gain	h_{FE1}	$V_{CE}=1V, I_C=50mA$	120		400	
	h_{FE2}	$V_{CE}=1V, I_C=500mA$	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

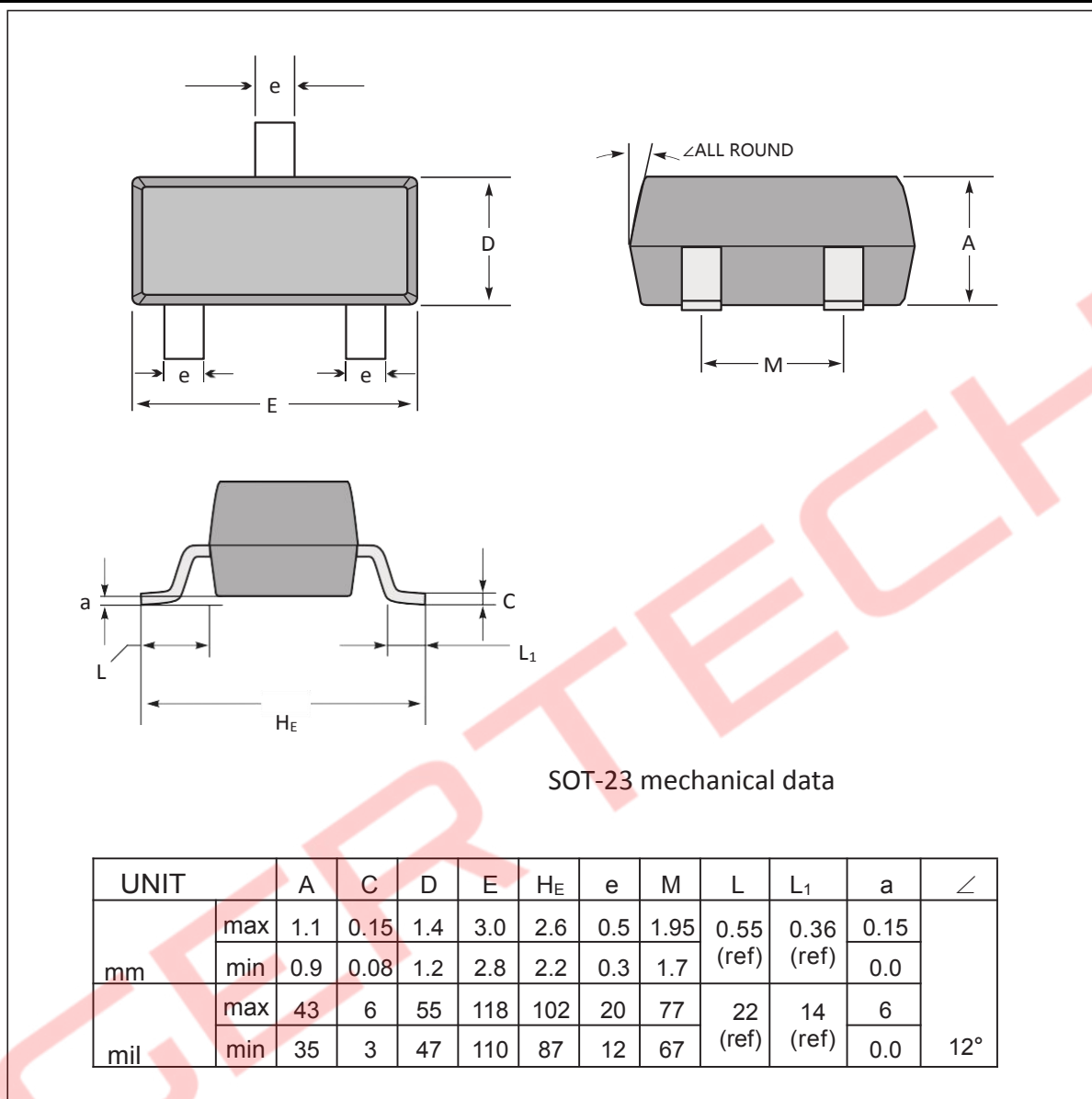
Classification of $h_{FE(1)}$

RANK	L	H	J
RANGE	120-200	200-350	300-400

Typical Characteristics Curves



Package Outline



The recommended mounting pad size

