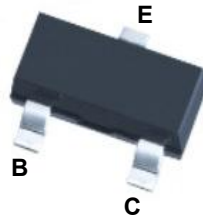
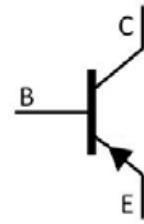


Features

- High collector current
- General purpose amplifier and switch
- Complementary pair with GS8050M



SOT-23



Schematic Diagram

Absolute Maximum Ratings

($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-25	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current	I_{C}	-1.5	A
Base Current	I_{B}	-0.5	A
Collector Power Dissipation	P_{C}	625	mW
Junction Temperature	T_{j}	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$

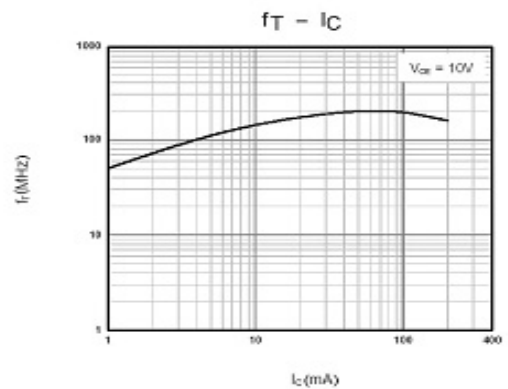
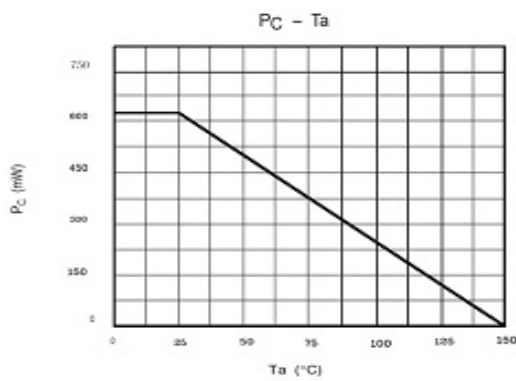
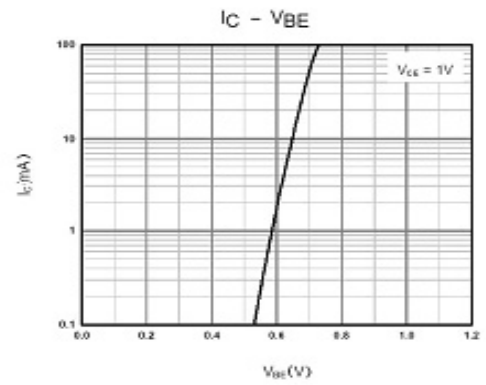
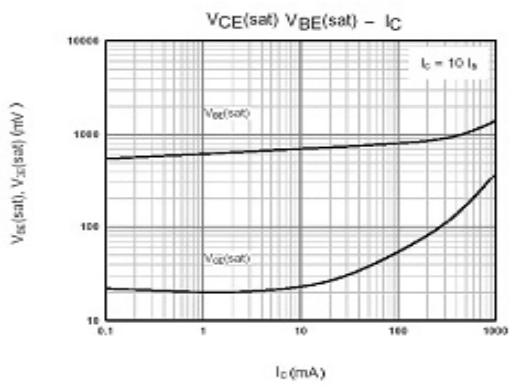
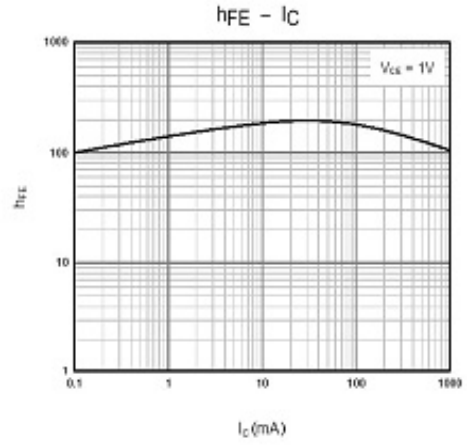
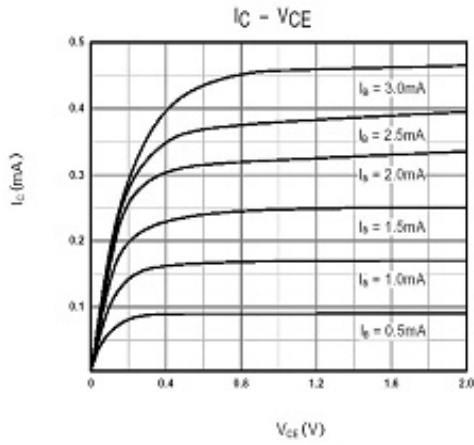
h_{FE} Classifications and Marking

h_{FE} Classifications Symbol	B	C	D
h_{FE} Range	85-160	120-200	160-300
Marking	HY2B	HY2C	HY2D

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

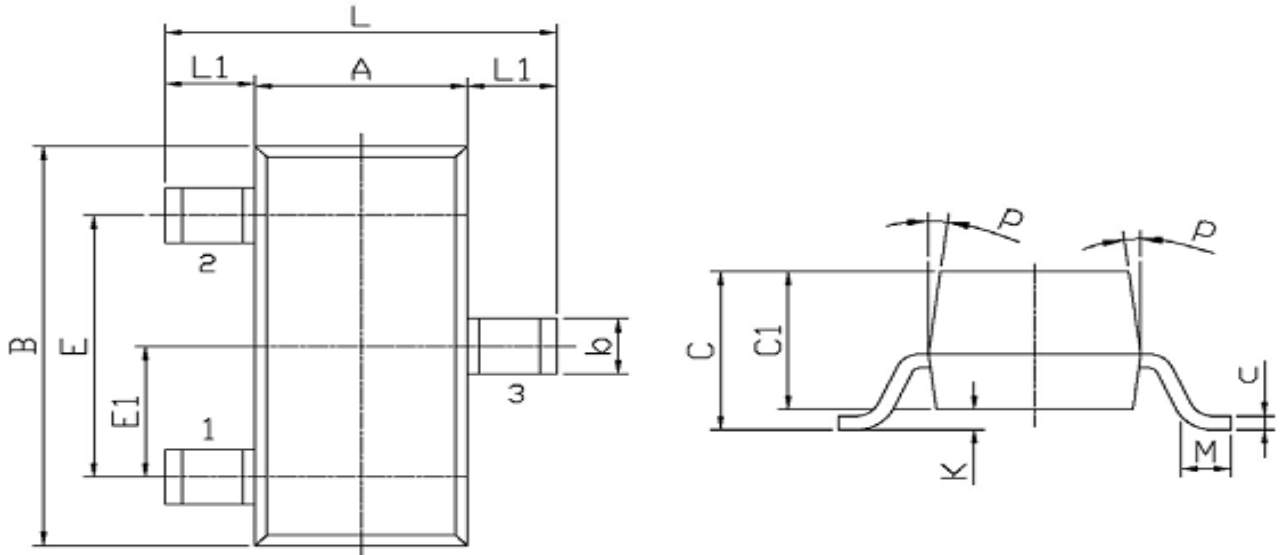
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-0.1\text{mA}$ $I_E=0$	-40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-2.0\text{mA}$ $I_B=0$	-25			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-0.1\text{mA}$ $I_C=0$	-6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-35\text{V}$ $I_E=0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-6.0\text{V}$ $I_C=0$			-0.1	μA
Forward Current Transfer Ratio ₍₁₎	$h_{FE(1)}$	$V_{CE}=-1.0\text{V}$ $I_C=-100\text{mA}$	85		300	
Forward Current Transfer Ratio ₍₂₎	$h_{FE(2)}$	$V_{CE}=-1.0\text{V}$ $I_C=-800\text{mA}$	40			
Forward Current Transfer Ratio ₍₃₎	$h_{FE(3)}$	$V_{CE}=-1.0\text{V}$ $I_C=-5.0\text{mA}$	45			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-800\text{mA}$ $I_B=-80\text{mA}$		-0.28	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-800\text{mA}$ $I_B=-80\text{mA}$		-0.98	-1.2	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-1.0\text{V}$ $I_C=-10\text{mA}$		-0.66	-1.0	V
Transition Frequency	f_T	$V_{CE}=-10\text{V}$ $I_C=-50\text{mA}$	100	200		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		15		pF

Ratings and Characteristic Curves



Package Outline Dimensions

SOT-23



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7	
b	0.35	0.55			