

Description

Silicon PNP transistor in a SOT-23 Plastic Package

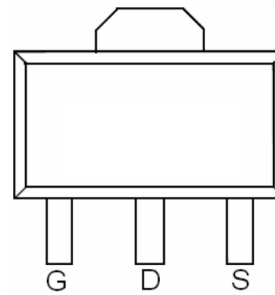
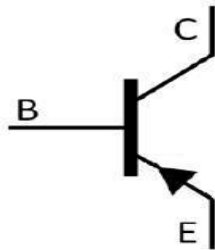
Applications

Power amplifier applications.

Features

- Complementary pair with 8050M
- Halogen-free product

Symbol	Parameter	Max	Unit
V_{CE0}	collector-emitter voltage	-25	V
I_c	collector current (DC)	-1.5	A

Equivalent Circuit & Pinning


SOT-89 top view

PIN1: Base

PIN 2: Emitter

PIN 3: Collector

h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	B	C	D
h _{FE} Range	85~160	120~200	160~300
Marking	HY2B	HY2C	HY2D

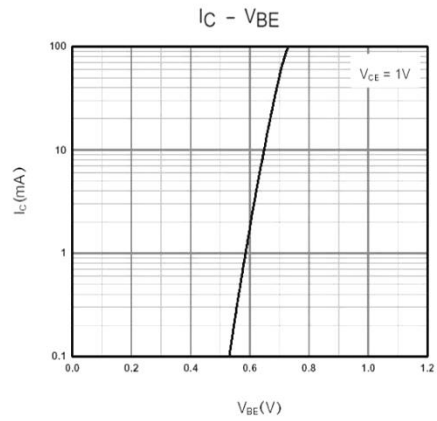
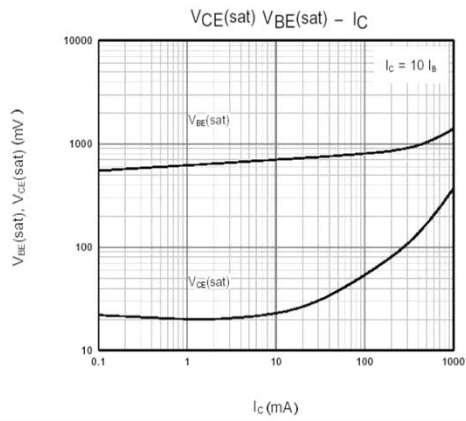
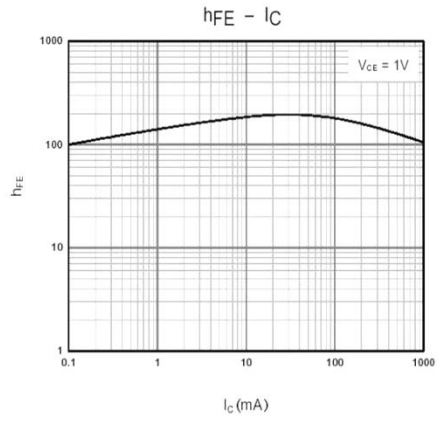
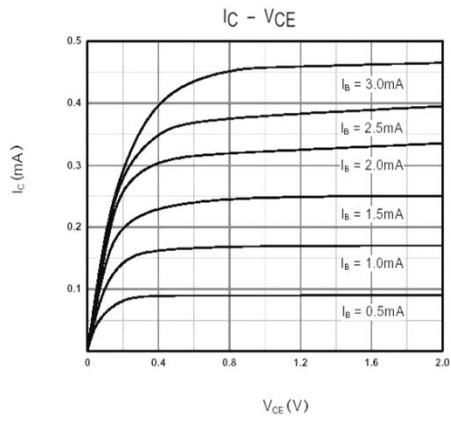
Absolute Maximum Ratings(Ta=25°C)

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	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

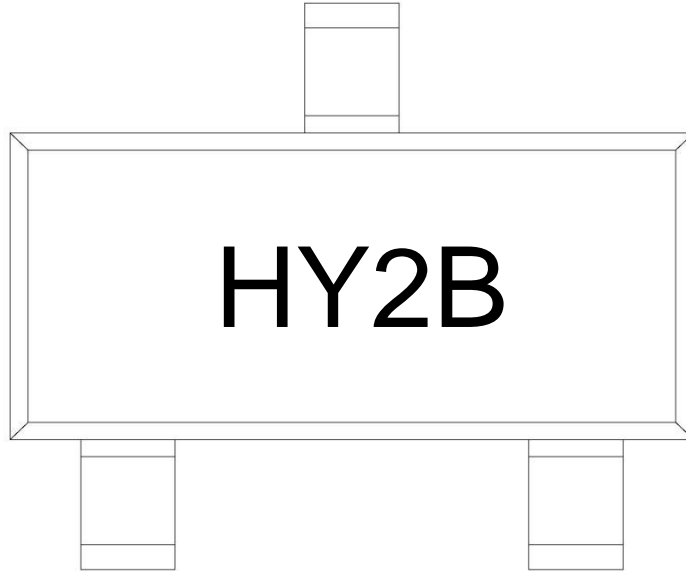
Electrical Characteristics(Ta=25°C)

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

Electrical Characteristic Curve



Marking Instructions



Note:

- H: Company Code.
- Y2: Product Type Code
- B: h_{FE} Classifications Symbol

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

Packaging SPEC.

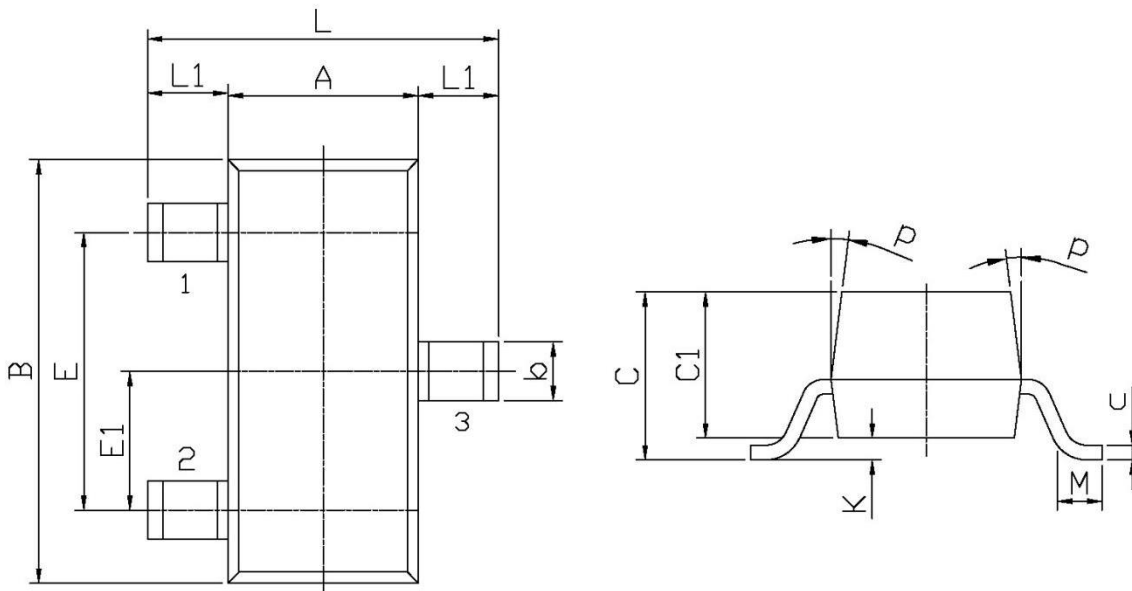
REEL INFORMATION

Package Type	Units					Dimension (unit: mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

Package Outline Dimensions

SOT-23

单位: mm



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			