

Description

Silicon PNP transistor in a SOT-23 Plastic Package

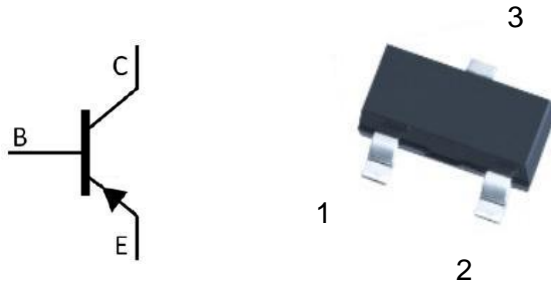
Features

- Low $V_{CE(sat)}$
- High current
- Halogen-free product

Applications

- General purpose switching and muting
- LCD back-lighting
- Supply line switching circuits

Symbol	Parameter	Max	Unit
V_{CEO}	collector-emitter voltage	-20	V
I_C	collector current (DC)	-2.0	A

Equivalent Circuit & Pinning


PIN1: Base

PIN 2: Emitter

PIN 3: Collector

hFE Classifications & Marking

h _{FE} Range	220~450
Marking	HZH

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CB0}	-20	V
Collector to Emitter Voltage	V _{CEO}	-20	V
Emitter to Base Voltage	V _{EBO}	-5.0	V
Collector Current	I _C	-2.0	A
Peak Collector Current	I _{CM}	-5.0	A
Base Current	I _B	-0.5	A
total power dissipation	P _{tot(1)} ^{注2}	300	mW
total power dissipation	P _{tot(2)} ^{注1、2}	1.2	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

注:

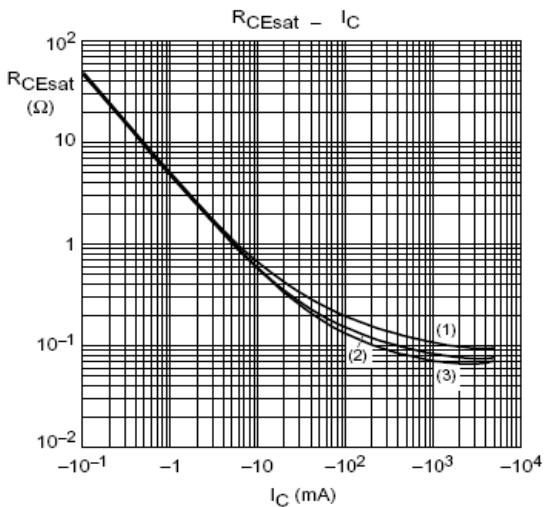
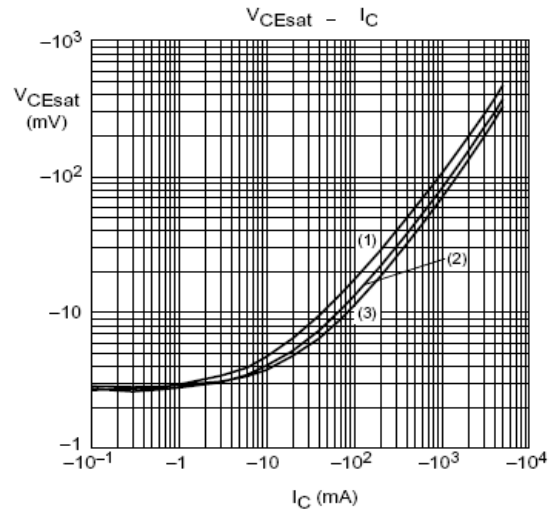
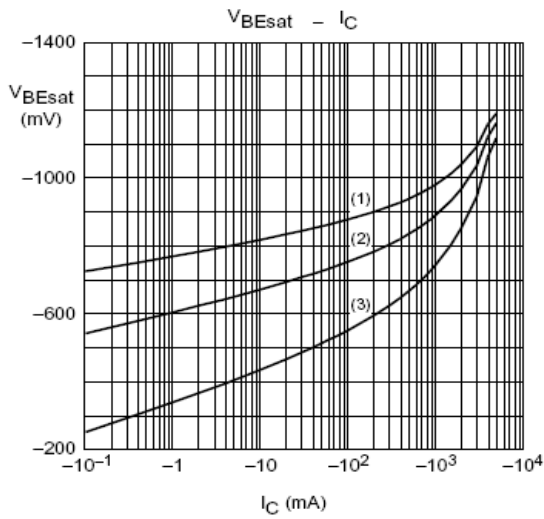
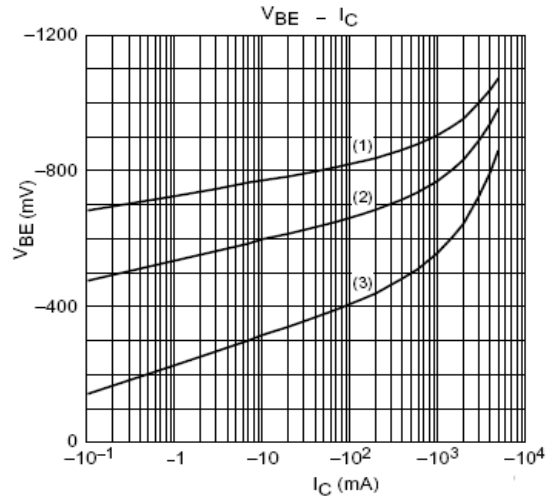
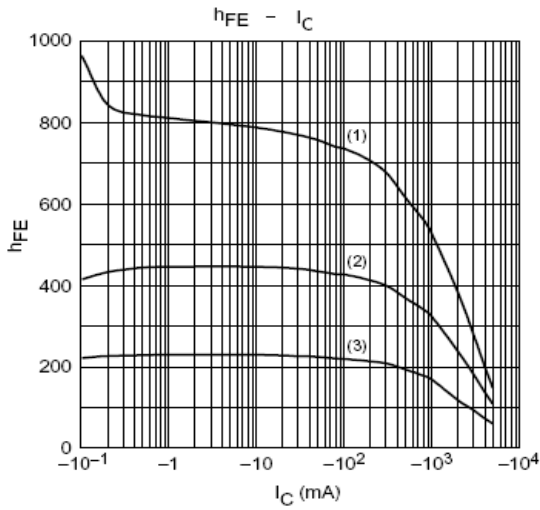
1. 脉冲条件下操作: 脉冲宽度tp ≤ 100 ms, 占空比δ ≤ 0.25。
2. 器件安装在印刷电路板上。

Electrical Characteristics(Ta=25°C)

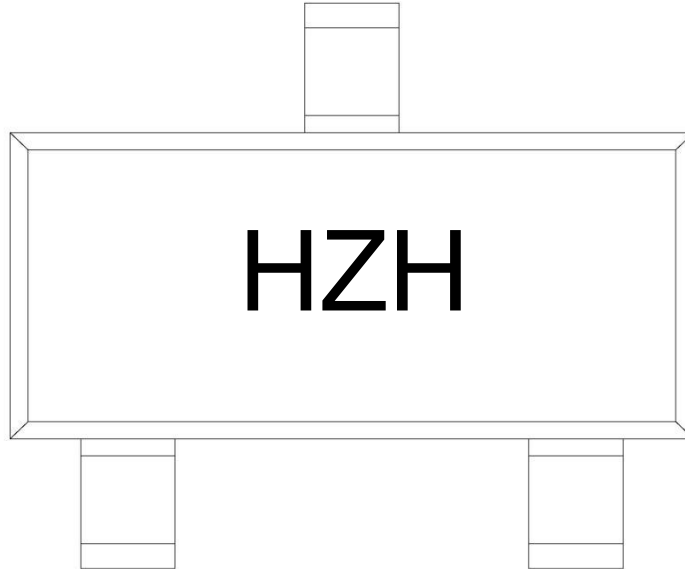
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I _{CBO}	V _{CB} =-20V I _E =0			-0.1	μA
		V _{CB} =-20V I _E =0 T _j =150°C			-50	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-5.0V I _C =0			-0.1	μA
DC Current Gain	h _{FE(1)}	V _{CE} =-2.0V I _C =-500mA	220		450	
	h _{FE(2)}	V _{CE} =-2.0V I _C =-100mA	220			
	h _{FE(3)}	V _{CE} =-2.0V I _C =-1.0A	200			
	h _{FE(4)}	V _{CE} =-2.0V I _C =-2.0A	150			
	h _{FE(5)}	V _{CE} =-2.0V I _C =-3.0A	100			
Collector-Emitter Saturation Voltage	V _{CE(sat)(1)}	I _C =-500mA I _B =-50mA			-100	mV
	V _{CE(sat)(2)}	I _C =-2.0A I _B =-100mA			-300	mV
Equivalent on-resistance	R _{CE(sat)}	I _C =-2.0A I _B =-200mA		125	150	mΩ
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-2.0A I _B =-100mA			-1.1	V
		I _C =-3.0A I _B =-300mA			-1.2	V
Base-Emitter Voltage	V _{BE(ON)}	V _{CE} =-2.0V I _C =-1.0A			-1.2	V
Transition Frequency	f _T	V _{CE} =-5.0V I _C =-100mA f=100MHz	100			MHz
Collector Capacitance	C _C	V _{CB} =-10V I _E =0 f=1.0MHz			50	pF

*注: 脉冲测试: tp ≤ 300 μs; δ ≤ 0.02.

Electrical Characteristic Curve



Marking Instructions



Note:

H: Company Code.

ZH: Product Type Code.

Packaging SPEC.

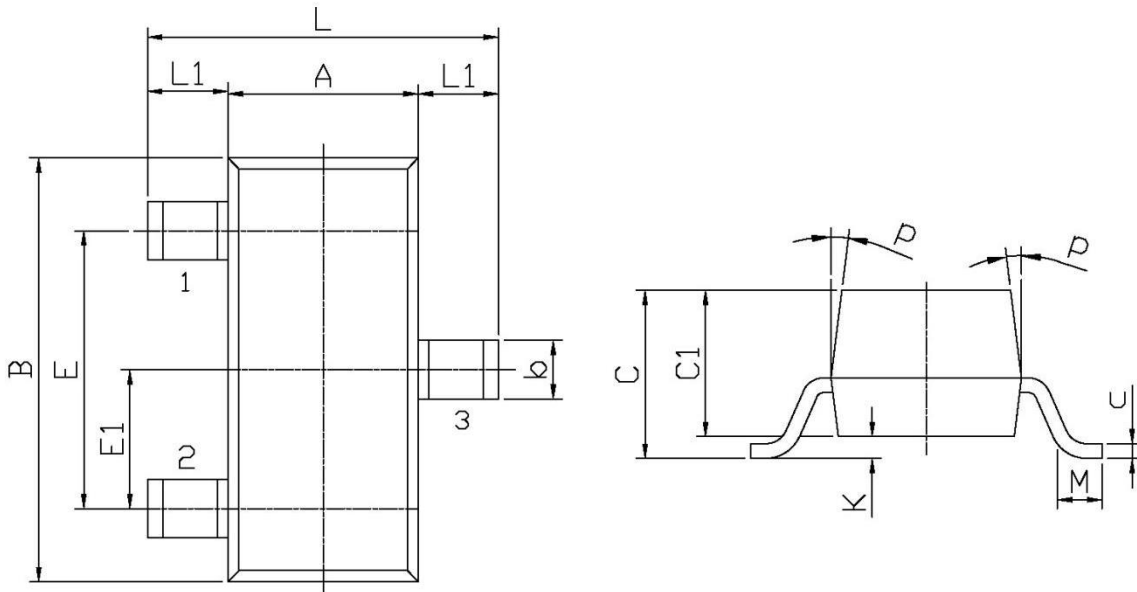
REEL INFORMATION

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" x8	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			