

Description

Silicon PNP transistor in a SOT-23 Plastic Package

Applications

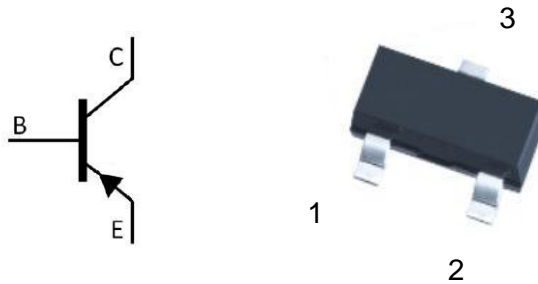
High voltage control circuit

Features

- High voltage
- Low saturation voltage
- Halogen-free product

Symbol	Parameter	Max	Unit
V_{CE0}	collector-emitter voltage	-400	V
I_C	collector current (DC)	-300	mA

Equivalent Circuit & Pinning



PIN1: Base

PIN 2: Emitter

PIN 3: Collector

hFE Classifications & Marking

h _{FE} Range	80~300
Marking	H4D

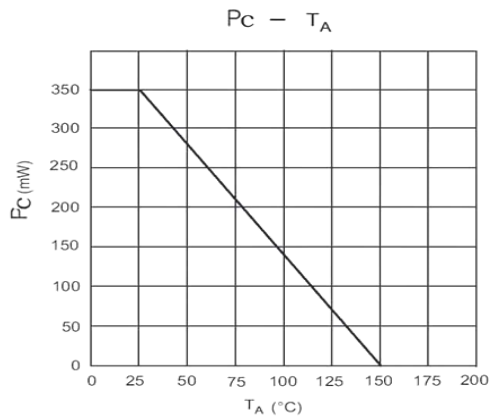
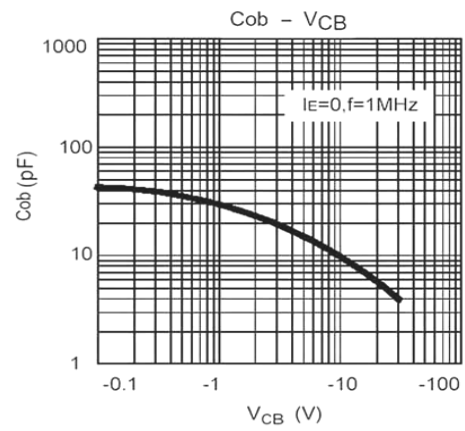
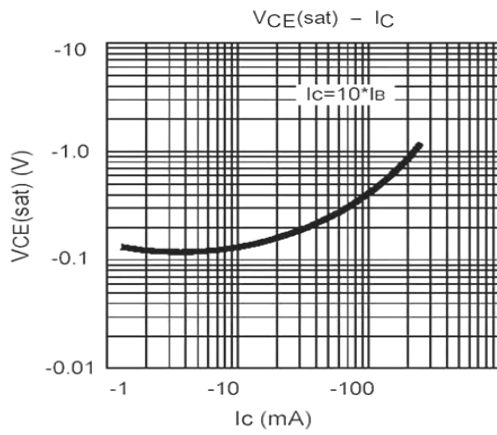
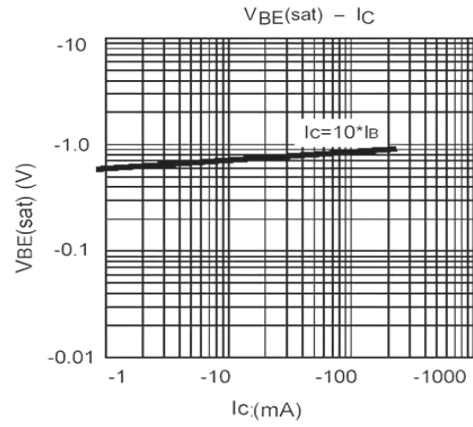
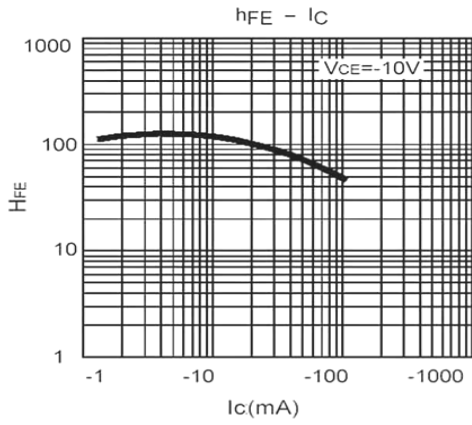
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-400	V
Collector to Emitter Voltage	V_{CEO}	-400	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-300	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

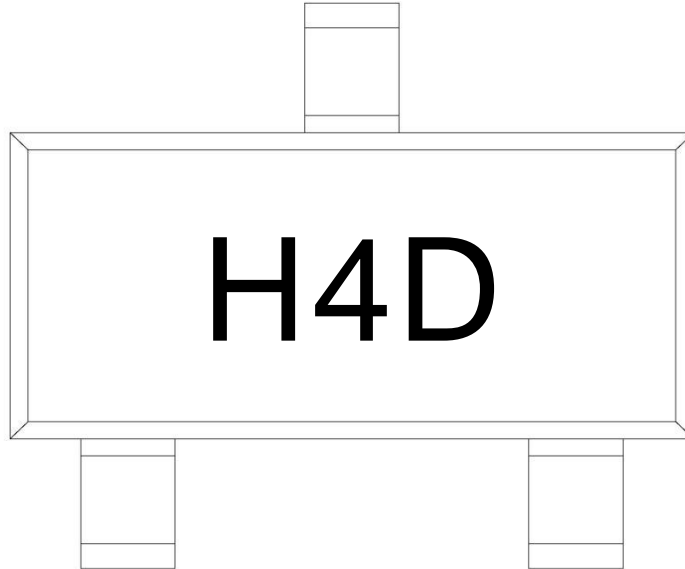
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-100\mu A$ $I_E=0$	-400			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-400			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-100\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-300V$ $I_E=0$			-0.1	μA
Collector Cut-Off Current	I_{CES}	$V_{CE}=-400V$ $V_{BE}=0$			-1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{CE}=-4.0V$ $I_C=0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CB}=10V$ $I_C=-10mA$	80		300	
	$h_{FE(2)}$	$V_{CB}=10V$ $I_C=-1.0mA$	70			
	$h_{FE(3)}$	$V_{CB}=10V$ $I_C=-100mA$	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-10mA$ $I_B=-1.0mA$			-0.2	V
	$V_{CE(sat)(2)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-10mA$ $I_B=-1.0mA$			-0.75	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ $f=30MHz$ $I_C=-10mA$	50			MHz

Electrical Characteristic Curve



Marking Instructions



Note:

H: Company Code.

4D: Product Type Code.

Packaging SPEC.

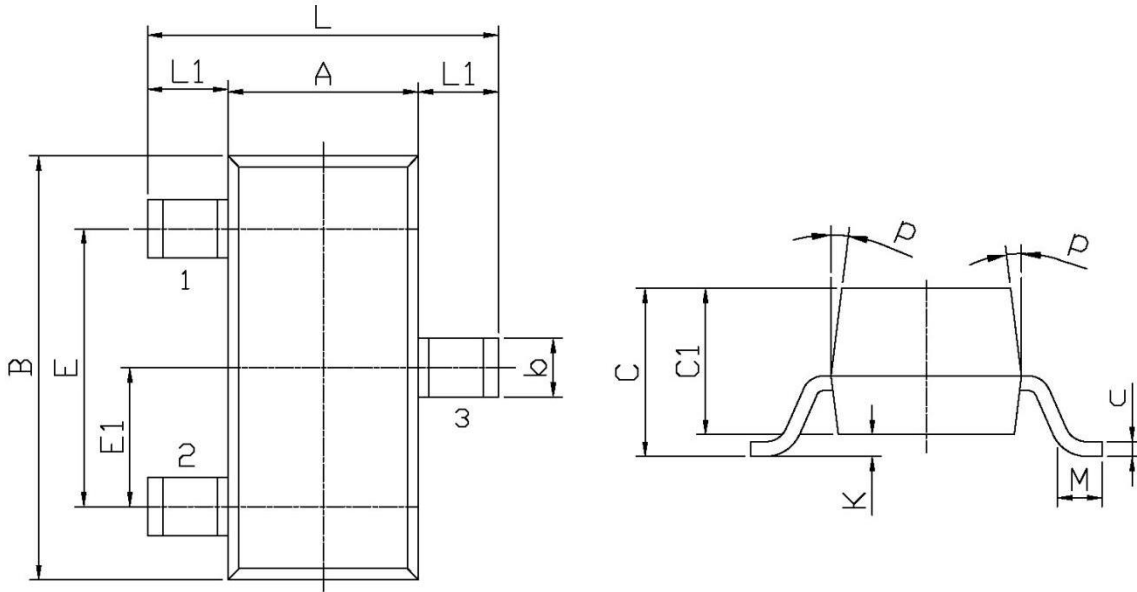
REEL INFORMATION

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	180x120x180	390x385x205

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			