

Description

Silicon PNP transistor in a SOT-23 Plastic Package

Applications

Amplifier of portable radios in class B push-pull operation

Features

- High PC and IC
- Excellent hFE linearity
- Complementary pair with 9013M
- Halogen-free Product

Symbol	Parameter	Max	Unit
V_{CE0}	collector-emitter voltage	-20	V
I_C	collector current (DC)	-500	mA

Equivalent Circuit & Pinning



PIN1: Base

PIN 2: Emitter

PIN 3: Collector

hFE Classifications & Marking

h _{FE} Classifications Symbol	D	E	F	G	H	I
h _{FE} Range	64~91	78~112	96~135	112~166	144~202	188~276
Marking	H2TD	H2TE	H2TF	H2TG	H2TH	H2TI

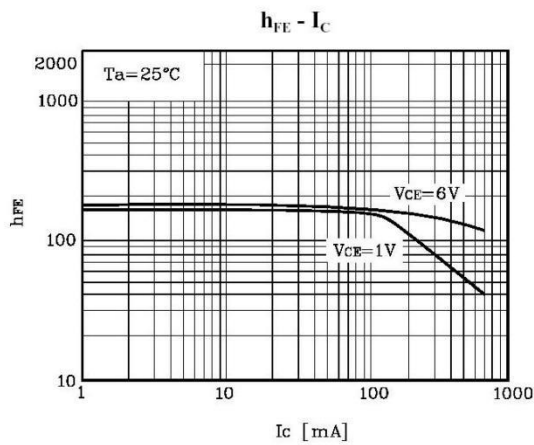
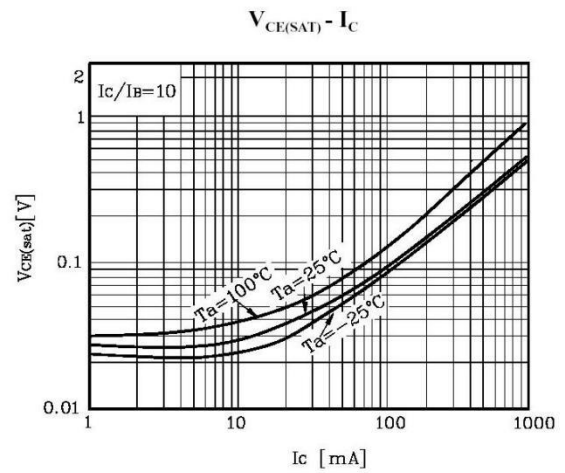
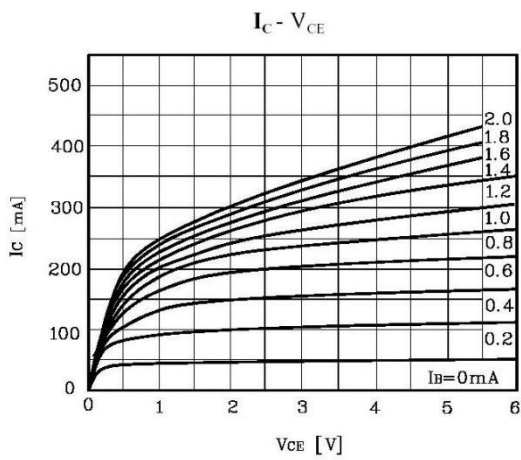
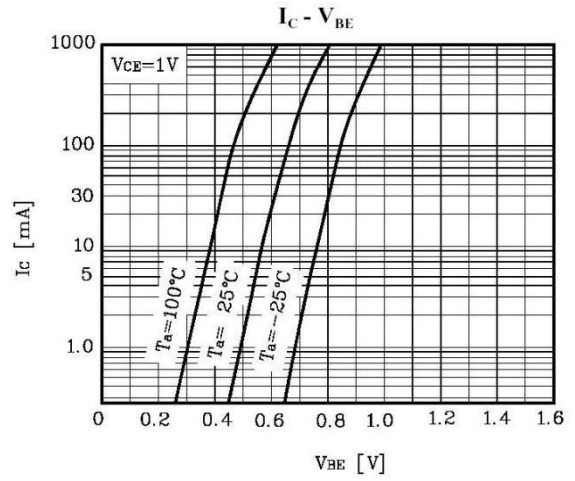
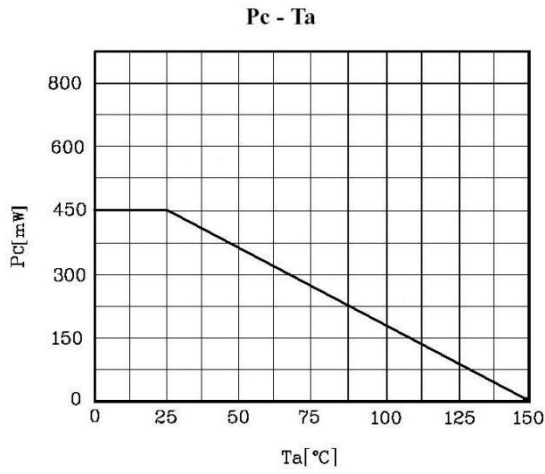
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-500	mA
Base Current	I_B	-100	mA
Collector Power Dissipation	P_C	450	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

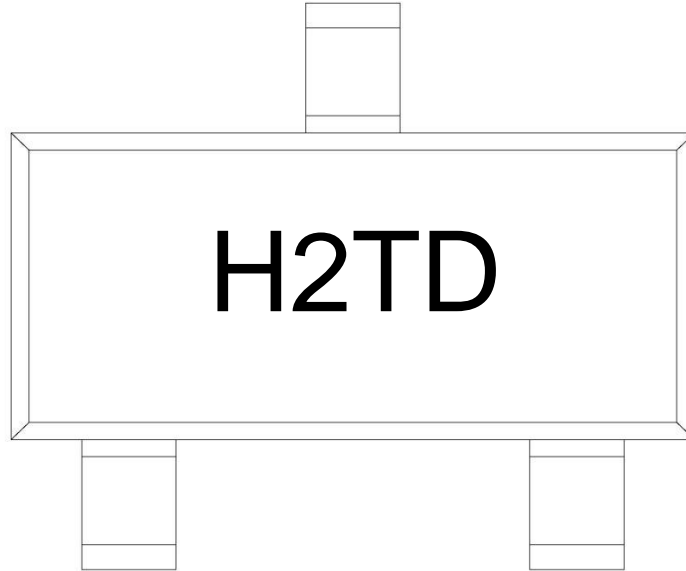
Electrical Characteristics(Ta=25°C)

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}	$I_C=-1.0mA$ $I_B=0$	-20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-0.1mA$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-25V$ $I_E=0$			-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-3.0V$ $I_C=0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1.0V$ $I_C=-50mA$	64		276	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-500mA$	40			
Collector-Emitter Saturation voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-0.18	-0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-0.95	-1.2	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-1.0V$ $I_C=-10mA$		-0.67	-0.7	V

Electrical Characteristic Curve



Marking Instructions



Note:

- H: Company Code
- 2T: Product Type Code
- D: h_{FE} Classifications Symbol Code

h_{FE} Classifications Symbol	D	E	F	G	H	I
h_{FE} Range	64~91	78~112	96~135	112~166	144~202	188~276
Marking	H2TD	H2TE	H2TF	H2TG	H2TH	H2TI

Packaging SPEC.

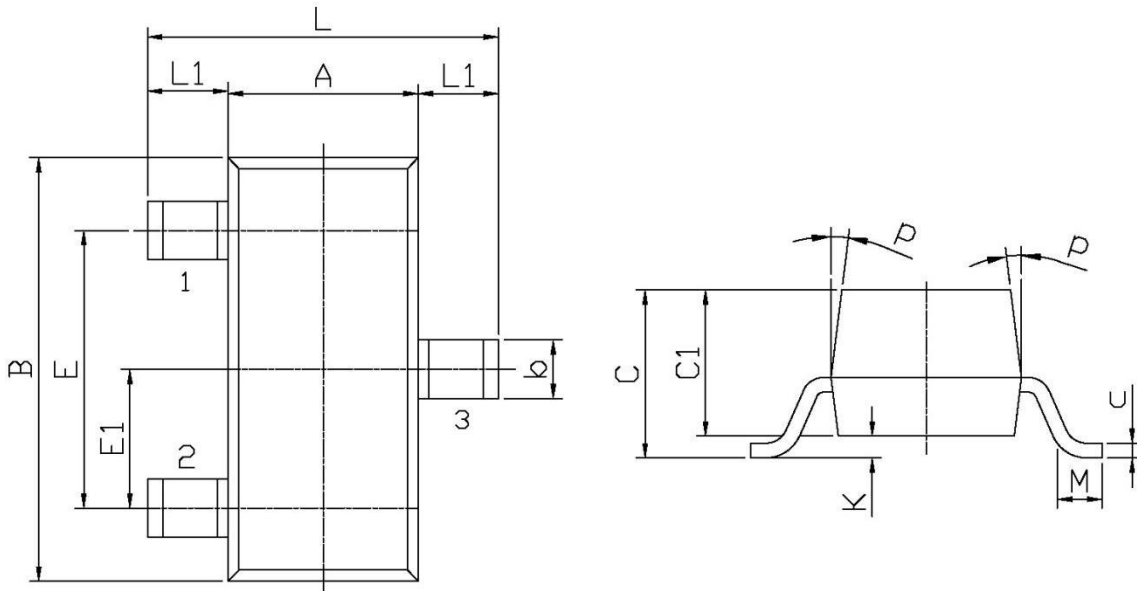
REEL INFORMATION

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			