

Description

Silicon PNP transistor in a SOT-23 Plastic Package

Applications

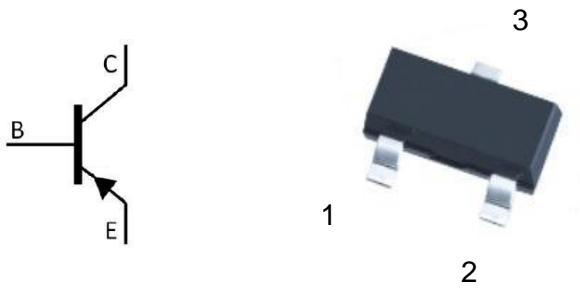
General purpose amplifier and switch requiring.

Features

- Collector currents up to -600 mA.
- Halogen-free Product.

Symbol	Parameter	Max	Unit
V_{CEO}	collector-emitter voltage	-40	V
I_C	collector current (DC)	-600	mA

Equivalent Circuit & Pinning



PIN1: Base

PIN 2: Emitter

PIN 3: Collector

hFE Classifications & Marking

h _{FE} Range	100~300
Marking	2TH

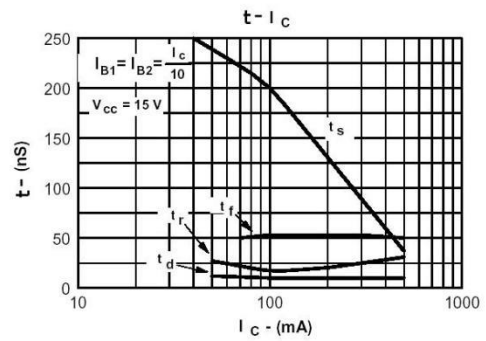
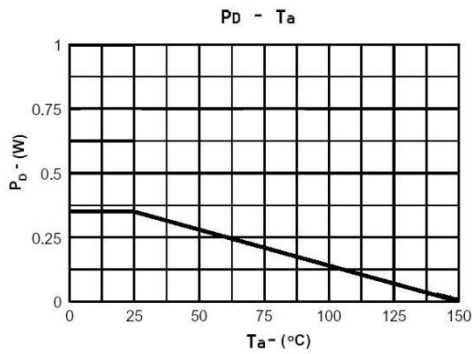
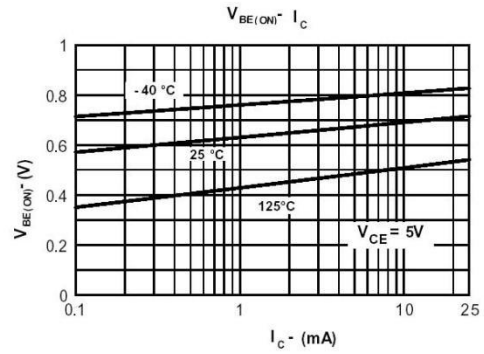
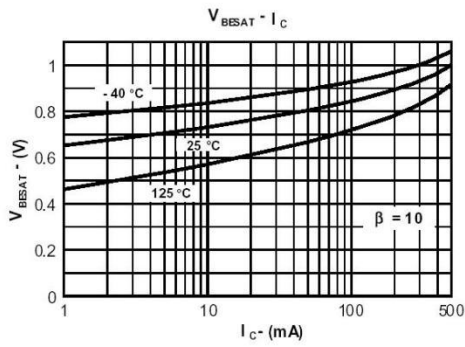
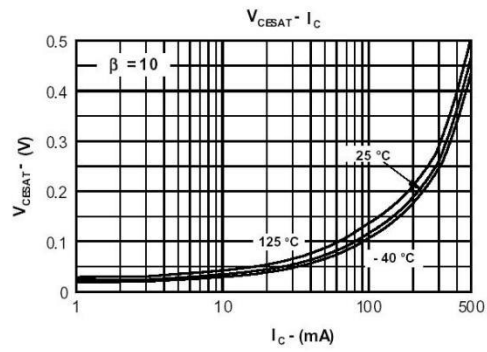
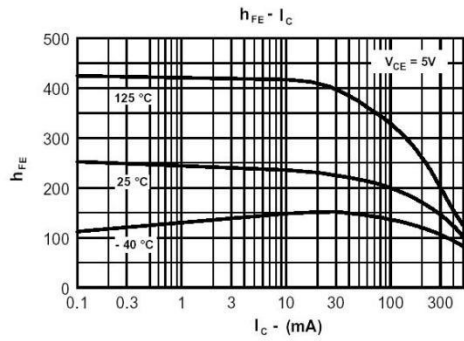
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-40	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-600	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

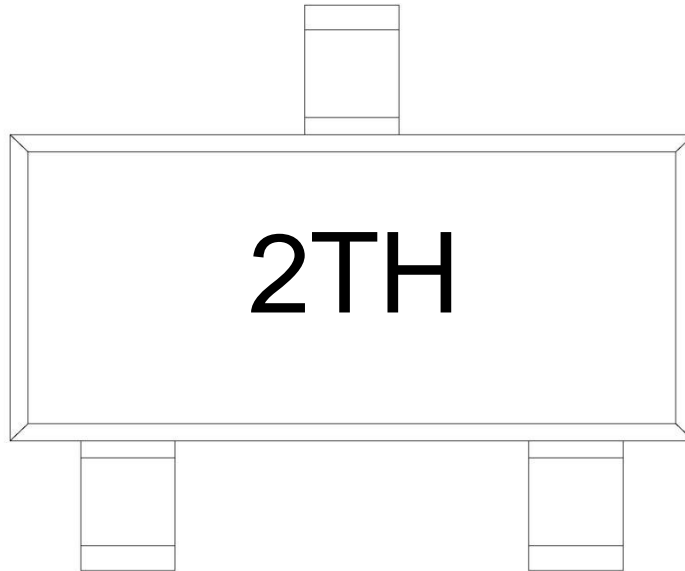
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-0.1mA$ $I_B=0$	-40			V
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-1.0mA$ $I_E=0$	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-0.1mA$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-40V$ $I_E=0$			-50	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-50	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-150mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-0.1mA$	30			
	$h_{FE(3)}$	$V_{CE}=-1.0V$ $I_C=-1.0mA$	60			
	$h_{FE(4)}$	$V_{CE}=-1.0V$ $I_C=-10mA$	100			
	$h_{FE(5)}$	$V_{CE}=-2.0V$ $I_C=-500mA$	20			
Collector-Emitter Saturation voltage	$V_{CE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$			-0.4	V
	$V_{CE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-0.75	V
Base-Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$	-0.75		-0.95	V
	$V_{BE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-1.3	V
Transition Frequency	f_T	$V_{CE}=-10V$ $I_C=-20mA$ $f=100MHz$	200			MHz
Delay Time	t_d	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=-15mA$			15	ns
Rise Time	t_r				20	ns
Storage Time	t_s	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=I_{B2}=-15mA$			225	ns
Fall Time	t_f				30	ns

Electrical Characteristic Curve



Marking Instructions



Note:

2T: Product Type Code
H : Company Code

Packaging SPEC.

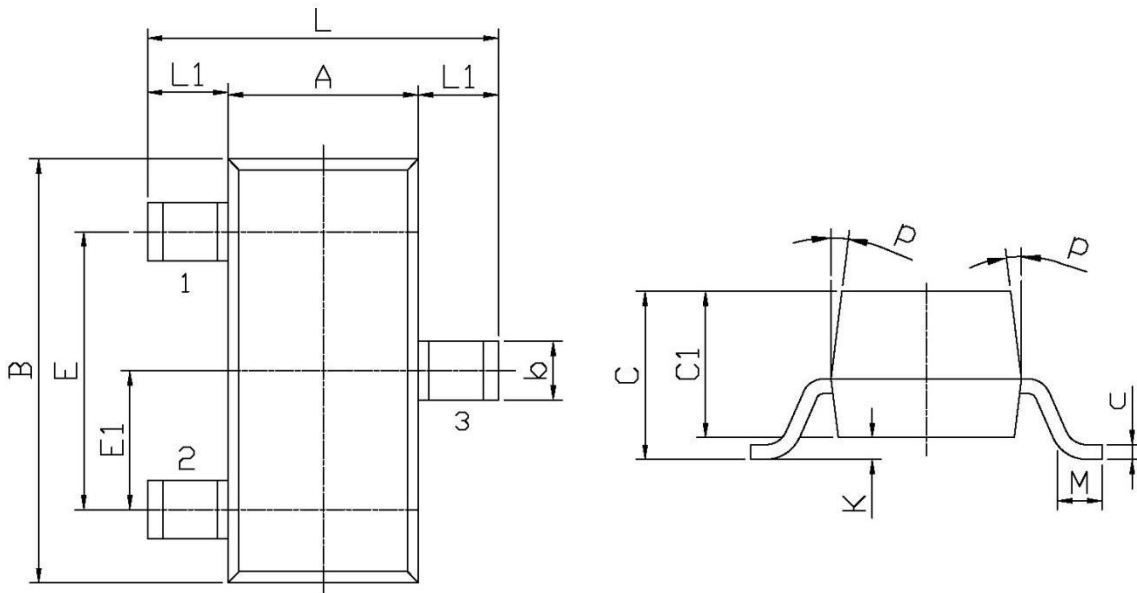
REEL INFORMATION

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			