

## Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package

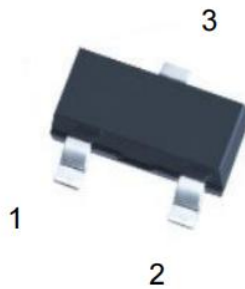
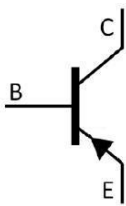
## Features

- High  $I_c$
- Complementary pair with CTBC817
- Halogen-free product

## Applications

General power amplifier and switching applications

## Equivalent Circuit & Pinning



PIN1: Base

PIN 2: Emitter

PIN 3: Collector

## hFE Classifications & Marking

$h_{FE}$ Classifications Symbol	16	25	40
$h_{FE}$ Range	100~250	160~400	250~600
Marking	H5A	H5B	H5C

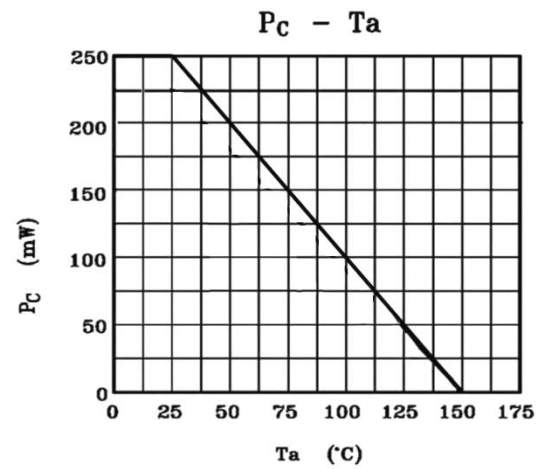
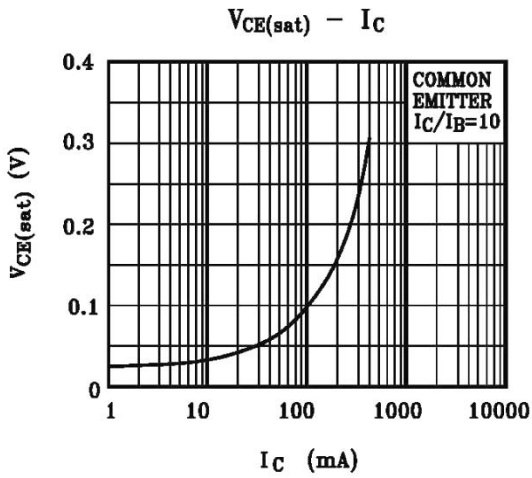
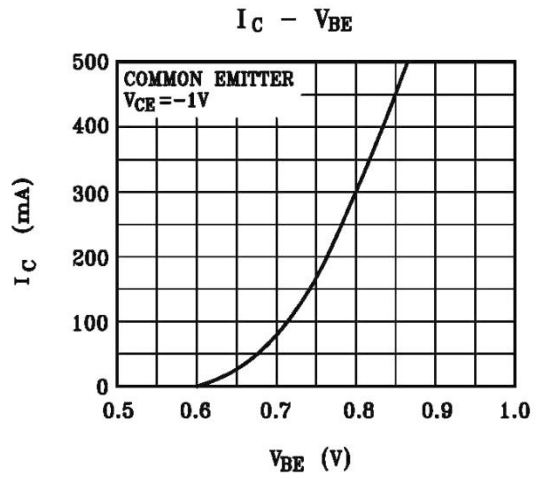
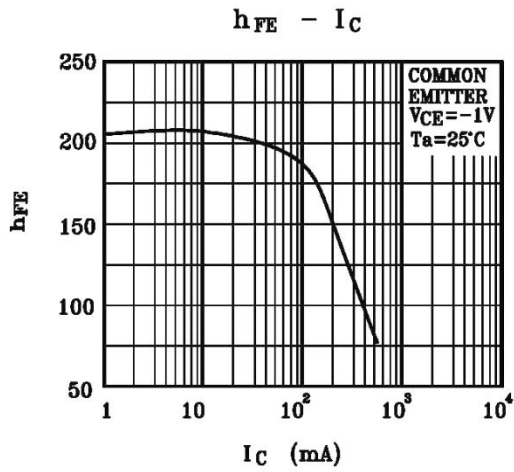
## Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-50	V
Collector to Emitter Voltage	$V_{CEO}$	-45	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current - Continuous	$I_C$	-500	mA
Peak Collector Current - Continuous	$I_{CM}$	-1.0	A
Power Dissipation	$P_C$	250	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55~150	°C

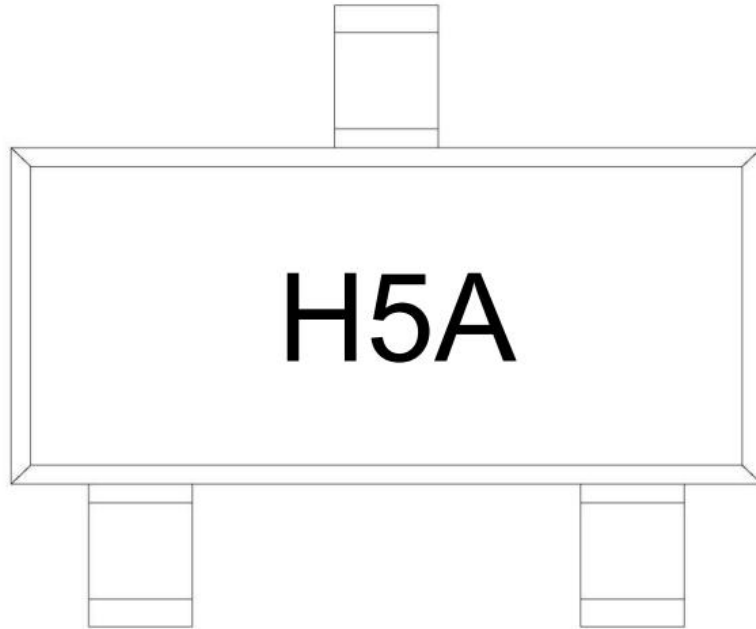
## Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-10\mu A$ $I_E=0$	-50			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-10mA^*$ $I_B=0$	-45			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-20V$ $I_E=0$			-0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-5.0V$ $I_C=0$			-0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1.0V$ $I_C=-100mA$	100		600	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-500mA^*$	40			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA^*$			-0.7	V
Base to Emitter Voltage	$V_{BE}$	$V_{CE}=-1.0V$ $I_C=-500mA$			-1.2	V
Transition Frequency	$f_T$	$V_{CE}=-5V$ $I_C=-10mA$	80			MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$		9.0		pF

Electrical Characteristic Curve



**Marking Instructions**



Note:

H: Company Code.

5A: Product Type Code

h <sub>FE</sub> Classifications Symbol	16	25	40
h <sub>FE</sub> Range	100~250	160~400	250~600
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**Packaging SPEC**

REEL INFORMATION

Package Type	Units					Dimension (unit: mm <sup>3</sup> )		
	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

