

**Description**

Silicon PNP transistor in a SOT-23 Plastic Package

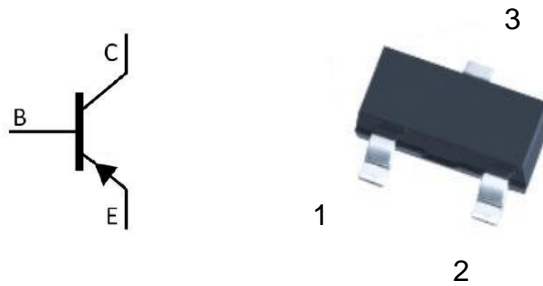
**Applications**

General power amplifier and switching applications

**Features**

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

Symbol	Parameter	Max	Unit
$V_{CE0}$	collector-emitter voltage	-45	V
$I_c$	collector current (DC)	-500	mA

**Equivalent Circuit & Pinning**


PIN1: Base

PIN 2: Emitter

PIN 3: Collector

 **$h_{FE}$  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)**

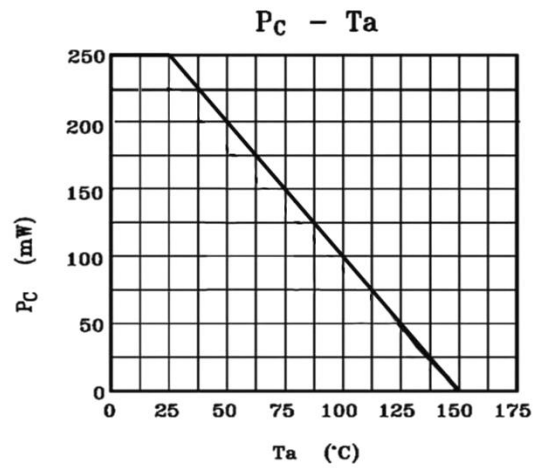
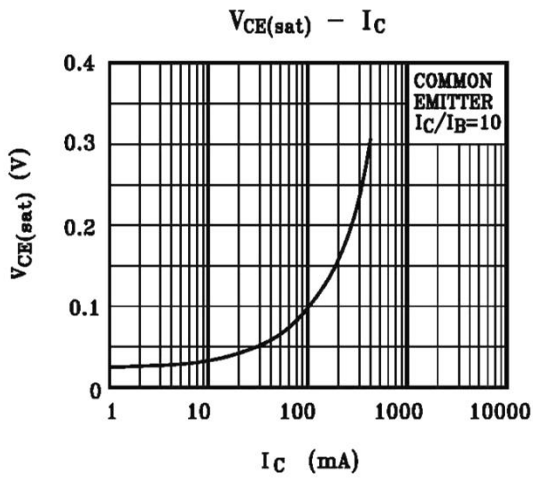
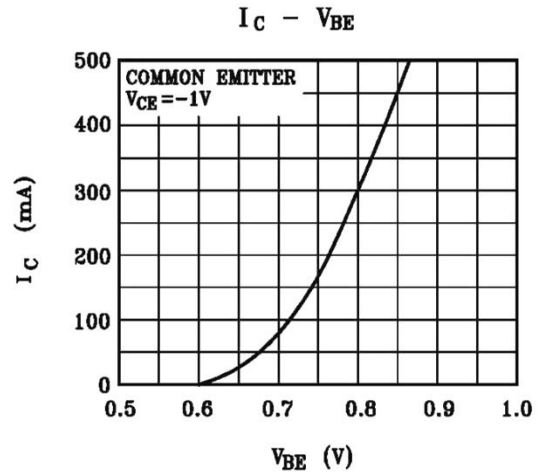
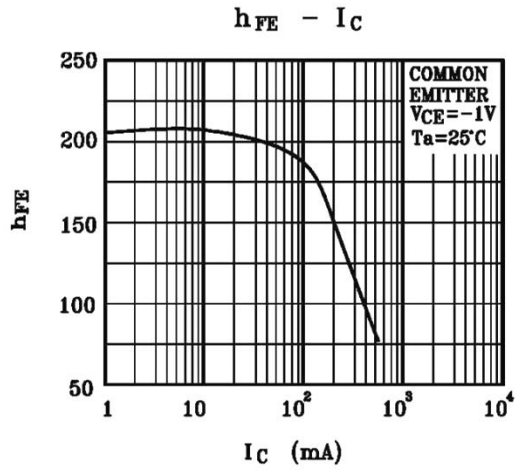
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-50	V
Collector to Emitter Voltage	$V_{CEO}$	-45	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current - Continuous	$I_C$	-500	mA
Peak Collector Current - Continuous	$I_{CM}$	-1.0	A
Power Dissipation	$P_C$	250	mW
Junction Temperature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

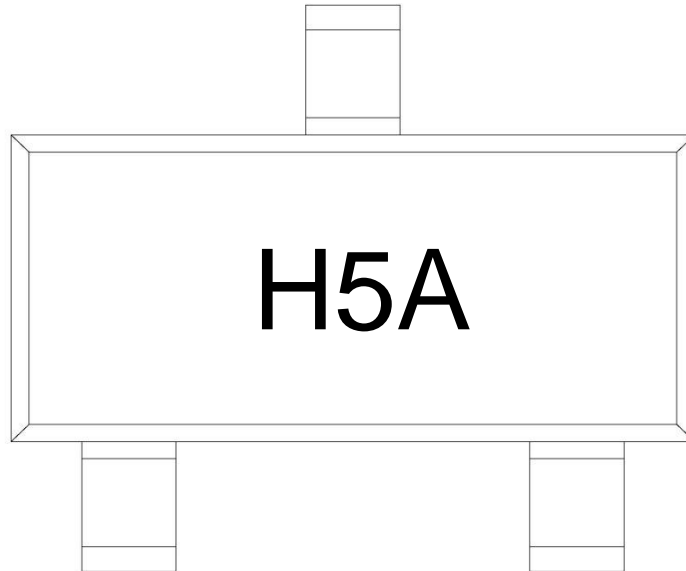
**Electrical Characteristics(Ta=25°C)**

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

pulse test: pulse width $\leq 300\mu S$ , duty cycle $\leq 2.0\%$ .

Electrical Characteristic Curve



**Marking Instructions**


Note:

H: Company Code.

5A: Product Type Code

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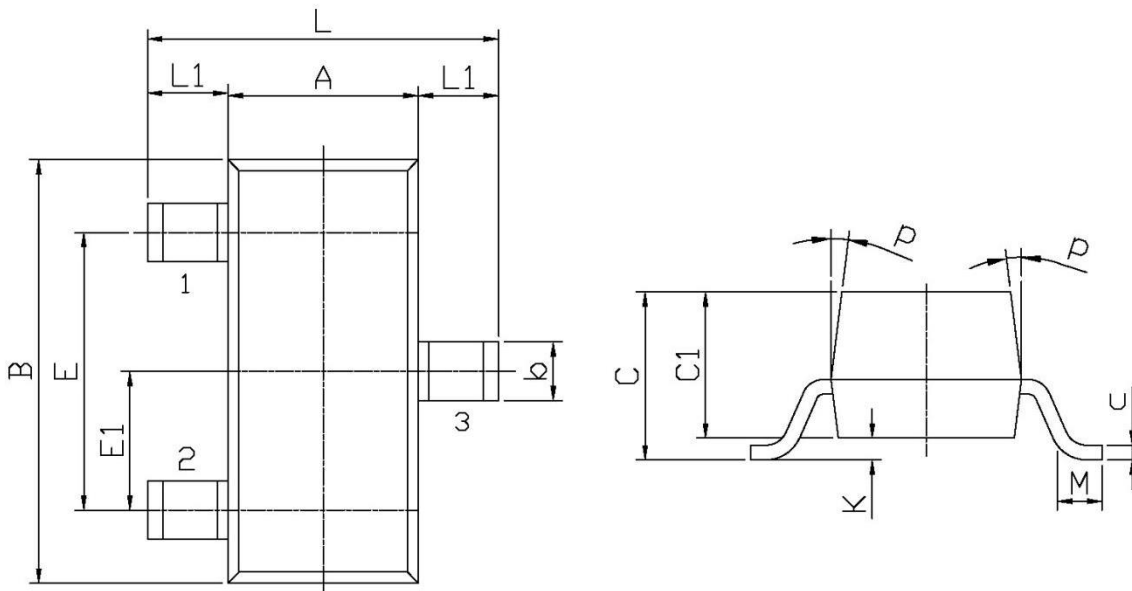
**Packaging SPEC.**
**REEL INFORMATION**

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" ×8	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			