

Descriptions

Silicon PNP transistor in a SOT-523 Plastic Package

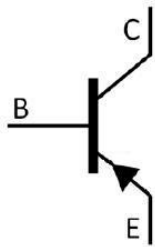
Features

- High DC Current Gain
- Low Collector to Emitter Saturation Voltage
- Halogen-free product

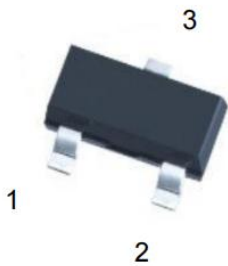
Applications

General purpose amplifier and switching.

Equivalent Circuit



Pinning



PIN1: Base PIN 2: Emitter PIN 3: Collector

hFE Classifications & Marking

h _{FE} Classifications Symbol	Q	R	S
h _{FE} Range	120~270	180~390	270~560
Marking	H2Q	H2R	H2S

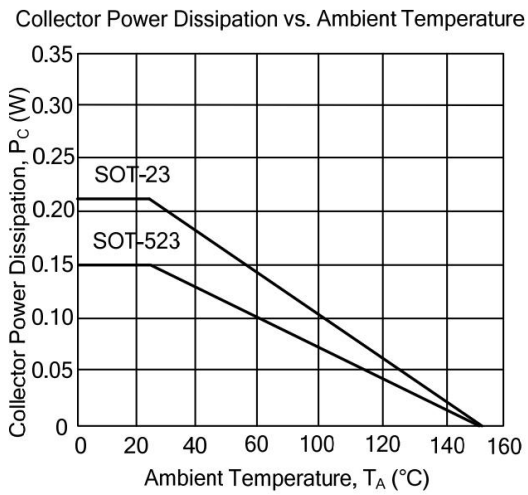
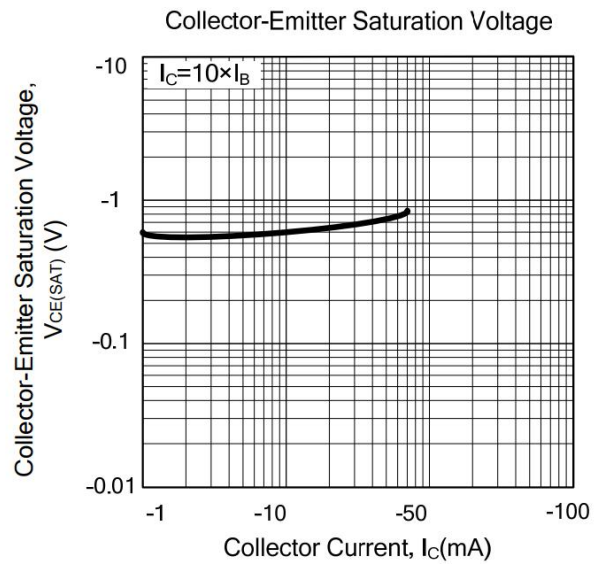
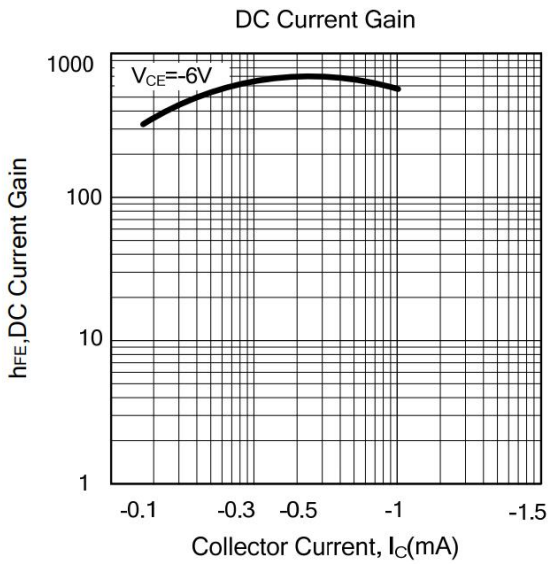
Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current	I_C	-150	mA
Collector Power Dissipation	P_C	150	mW
Thermal resistance, junction to Ambient	$R_{\theta JA}$	833	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

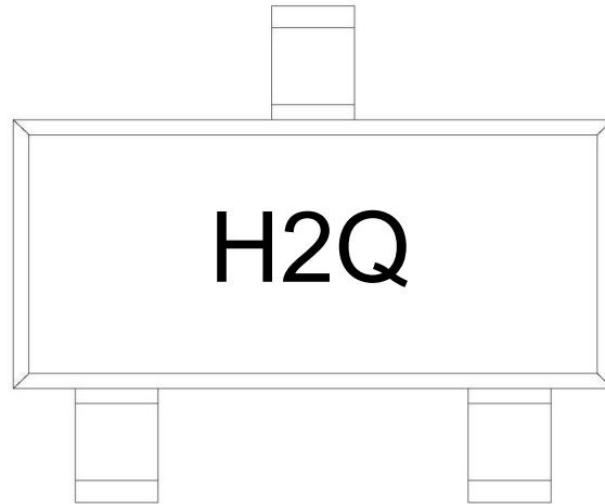
Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -50\mu A$ $I_E = 0$	-60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -1.0mA$ $I_B = 0$	-50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -50\mu A$ $I_C = 0$	-6			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -60V$ $I_E = 0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -6V$ $I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -6.0V$ $I_C = -1mA$	120		560	
Collector-Emitter Saturation voltage	$V_{CE(sat)}$	$I_C = -50mA$ $I_B = -5mA$			-0.5	V
Output Capacitance	C_{ob}	$V_{CB} = -12V$ $f = 1.0MHz$			5.0	pF
Transition Frequency	f_T	$V_{CE} = -12V$ $I_C = -2mA$ $f = 30MHz$		140		MHz

Electrical Characteristic Curve



Marking Instructions



Note:

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

h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	120~270	180~390	270~560
Marking	H2Q	H2R	H2S

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-523	3,000	10	30,000	6	180,000	7" × 8	180×120×180	390×385×205

Package Outline Dimensions

SOT-523

单位 ; mm

