

**Description**

Silicon PNP transistor in a SOT-523 Plastic Package

**Applications**

General purpose amplifier and switching.

**Features**

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

Symbol	Parameter	Max	Unit
$V_{CE0}$	collector-emitter voltage	-50	V
$I_c$	collector current (DC)	-150	mA

**Equivalent Circuit & Pinning**


PIN1: Base

PIN 2: Emitter

PIN 3: Collector

**hFE Classifications & Marking**

h <sub>FE</sub> Classifications Symbol	Q	R	S
h <sub>FE</sub> Range	120~270	180~390	270~560
Marking	H2Q	H2R	H2S

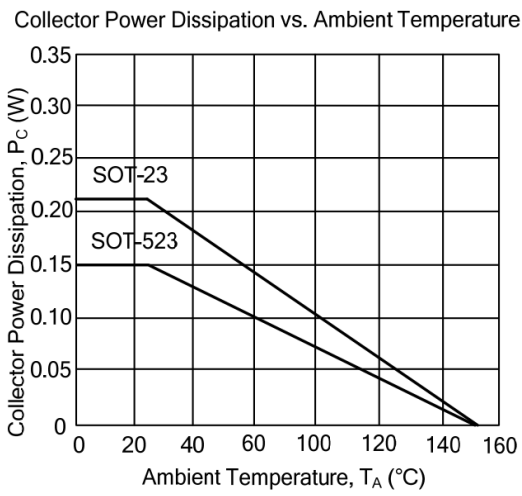
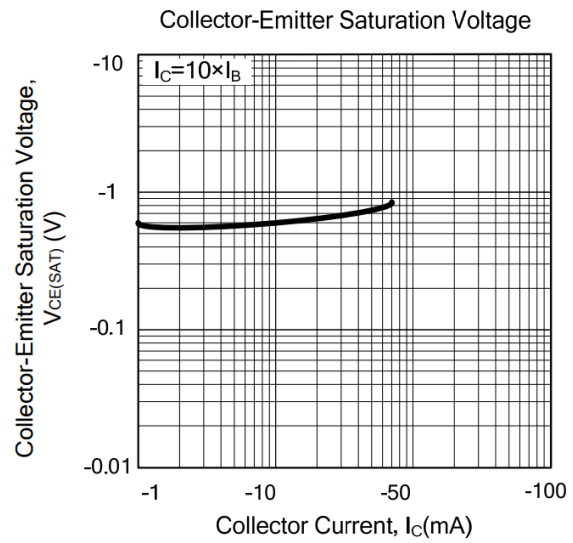
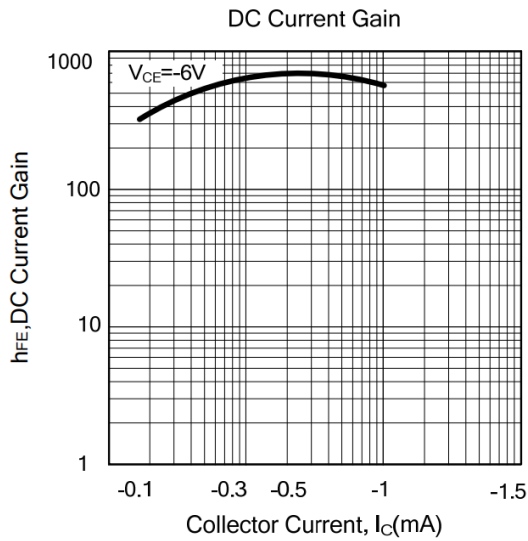
**Absolute Maximum Ratings(Ta=25°C)**

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

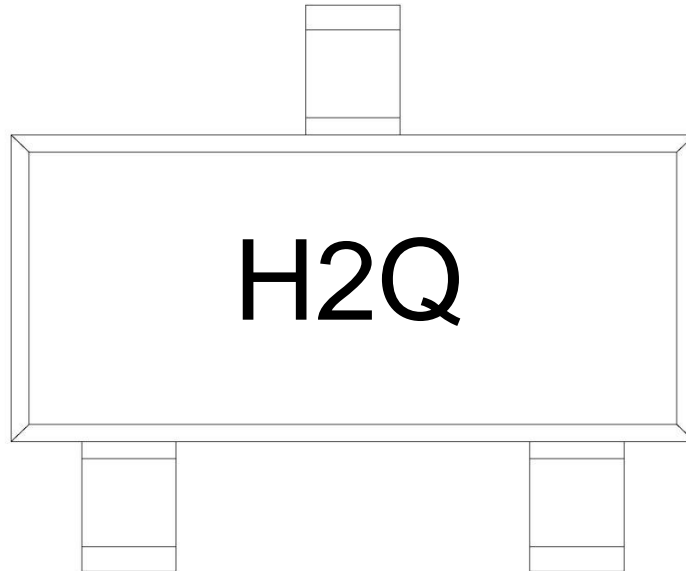
**Electrical Characteristics(Ta=25°C)**

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	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-6V$ $I_C=0$			-0.1	$\mu A$
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 <sup>3</sup> )		
	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" x8	180x120x180	390x385x205

Package Outline Dimensions

# SOT-523

单位 ; mm

