

/ Revised record

A	2022-4-19				

/ Descriptions

SOT-323 PNP Silicon PNP Digital Transistor in a SOT-323 Plastic Package.

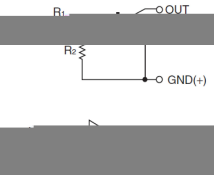
/ Features

With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process,HF Product.

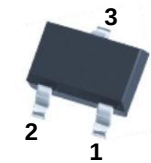
/ Applications

Switching applications, interface circuit and driver circuit applications.

/ Equivalent Circuit



/ Pinning



PIN1 GND PIN 2 IN PIN 3 OUT

/ Marking

Marking	H14
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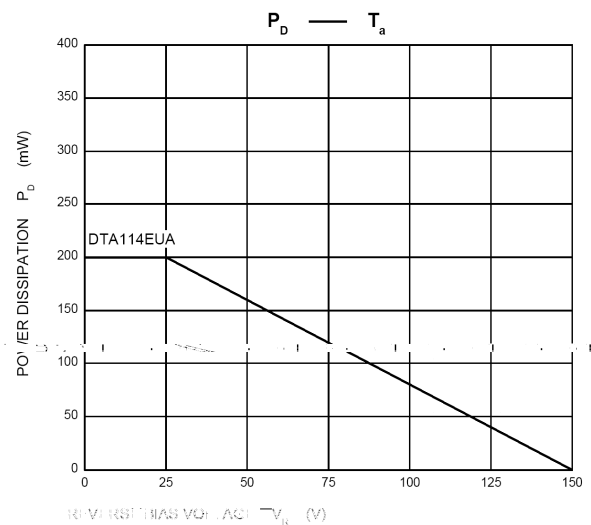
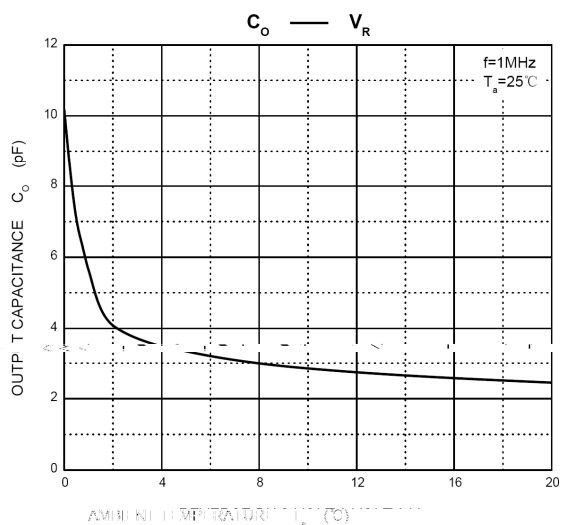
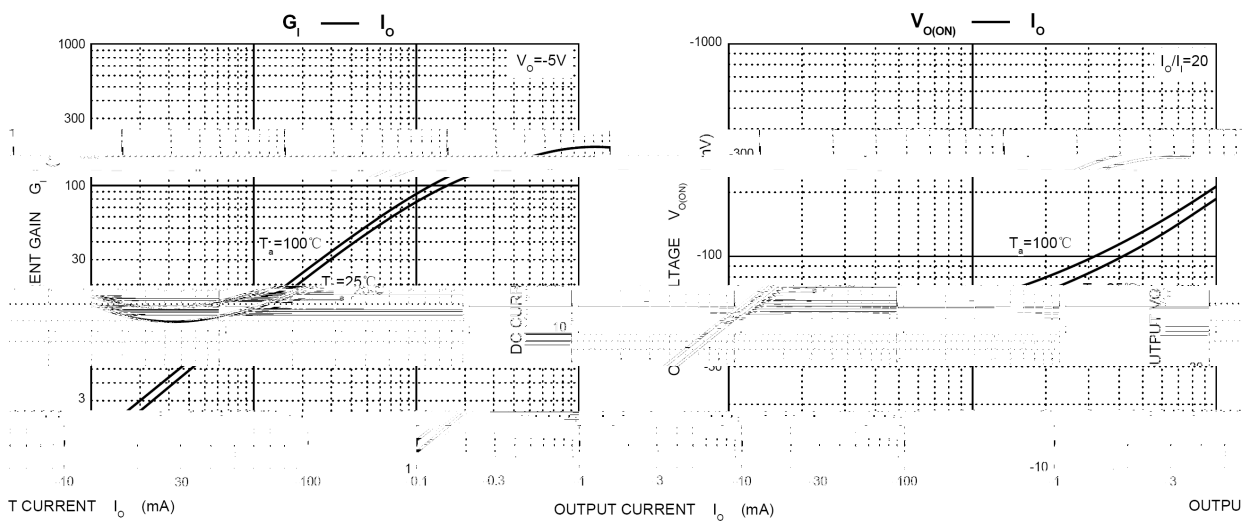
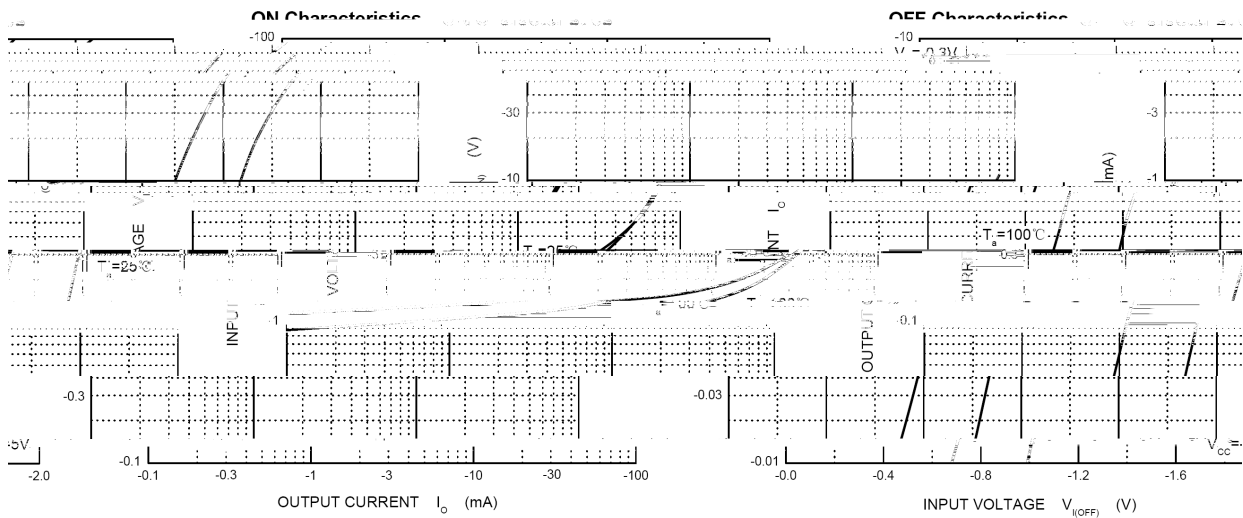
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Output Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	10	V
		-40	V
Output Current	I_O	-50	mA
Peak Collector Current	I_{CM}	-100	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	-55 ~ 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

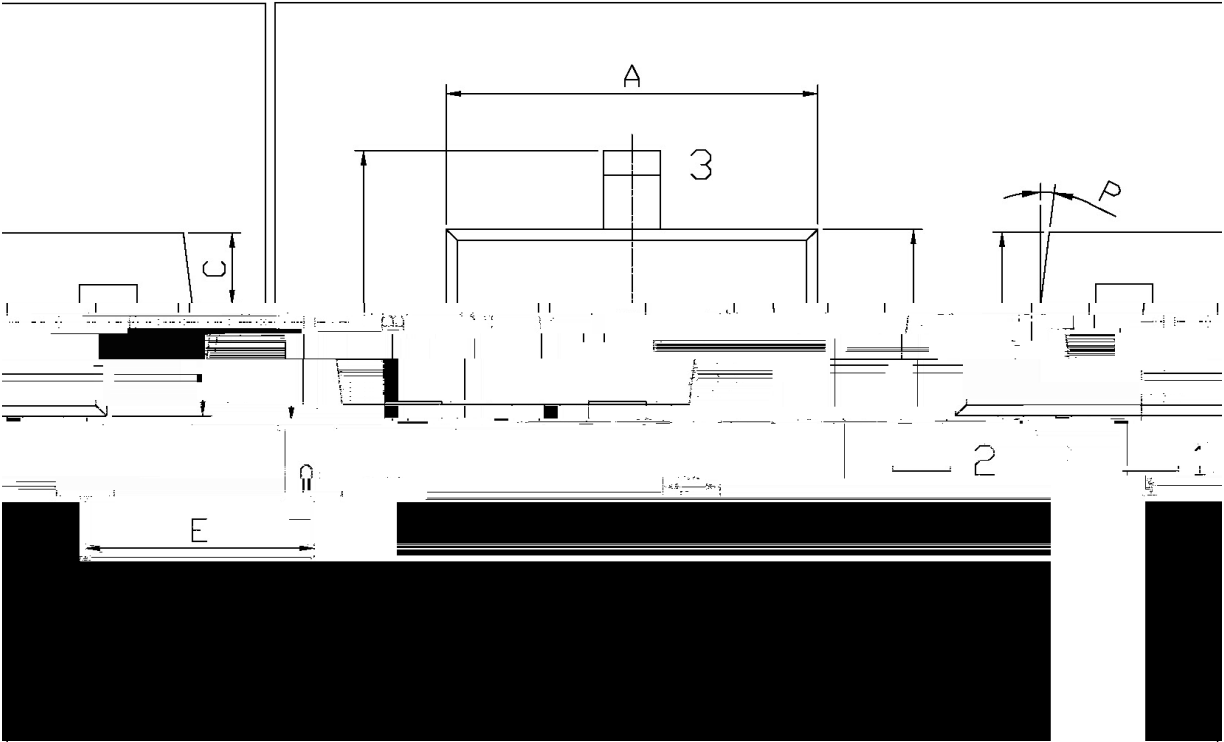
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	$V_{CC}=-5.0\text{V}$ $I_O=-100\mu\text{A}$	-0.5			V
	$V_{I(on)}$	$V_O=-0.3\text{V}$ $I_O=-10\text{mA}$			-3.0	V
Output Voltage	$V_{O(on)}$	$I_O=-10\text{mA}$ $I_I=-0.5\text{mA}$			-0.3	V
Input Current	I_I	$V_I=-5.0\text{V}$			-0.88	mA
Output Cut-off Current	$I_{O(off)}$	$V_{CC}=-50\text{V}$ $V_I=0\text{V}$			-0.5	μA
DC Current Gain	G_I	$V_O=-5.0\text{V}$ $I_O=-5.0\text{mA}$	30			
Resistance1	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		0.8	1.0	1.2	
Transition Frequency	f_T	$V_O=-10\text{V}$ $I_O=-5.0\text{mA}$ $f=100\text{MHz}$		250		MHz

/ Electrical Characteristic Curve



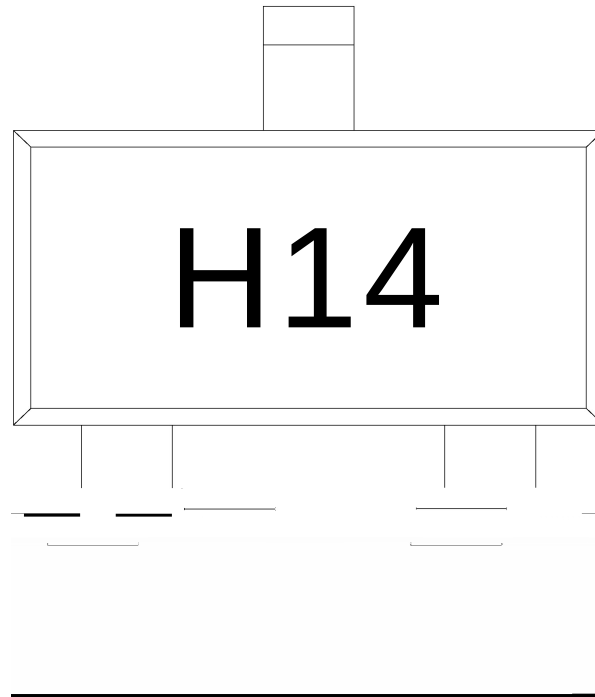
/ Package Dimensions

14V; mm S-1323



Symbol		Dimensions In Millimeters		Symbol		Dimensions In Millimeters	
	Min		Max		Min		Max
A	1.95		2.35	C	0.30		0.50
a	0.85		1.15	E	2.00		2.20
p	1.40		0.20	B	1.20		1.40
	1.35		7°				

/ Marking Instructions



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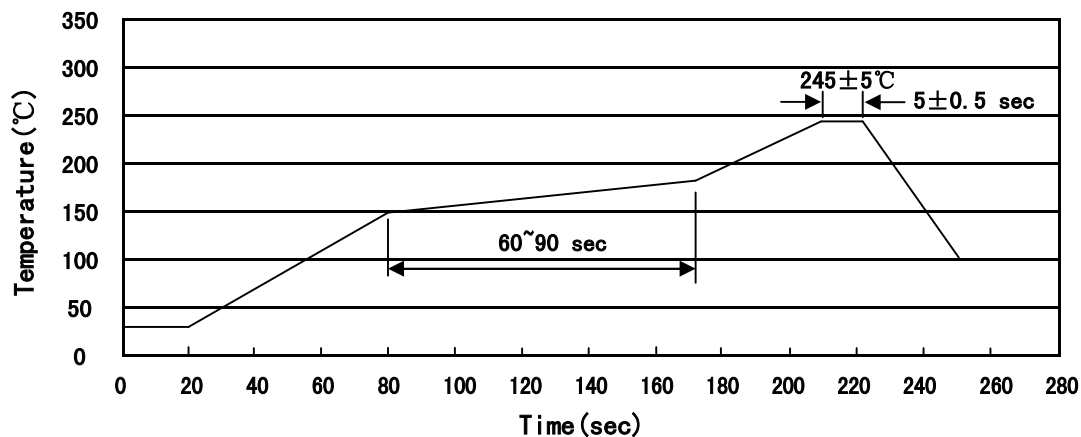
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Note:

H Company Code

14 Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5

10±1 sec.

Temp:260±5°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-323	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices