/ Descriptions

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

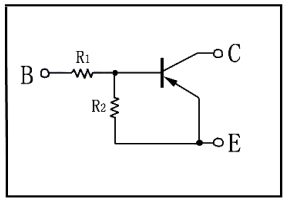
/ Features

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

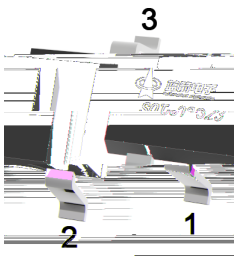
/ Applications

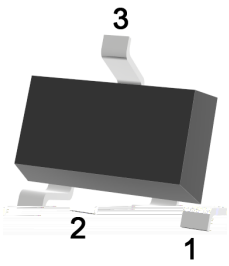
Switching, inverter circuit, interface circuit and driver circuit applications.

/ Equivalent Circuit



/ Pinning





PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

Marking	HE11

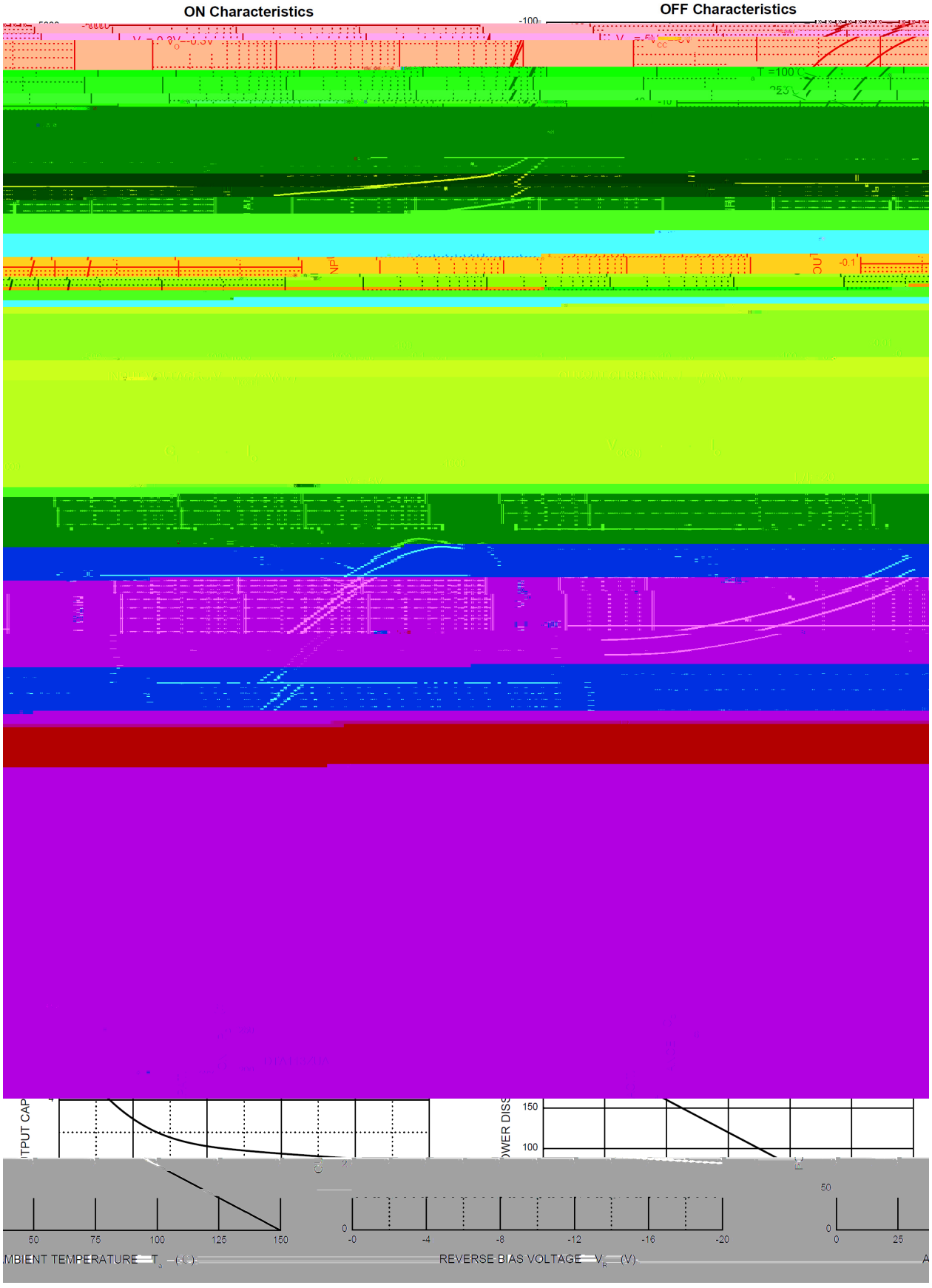
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-10	V
		5	V
Output Current	I_O	-100	mA
Power Dissipation	P_D	200	mW
Operation Junction and Storage Temperature Range	T_J,T_{stg}	-55 150	

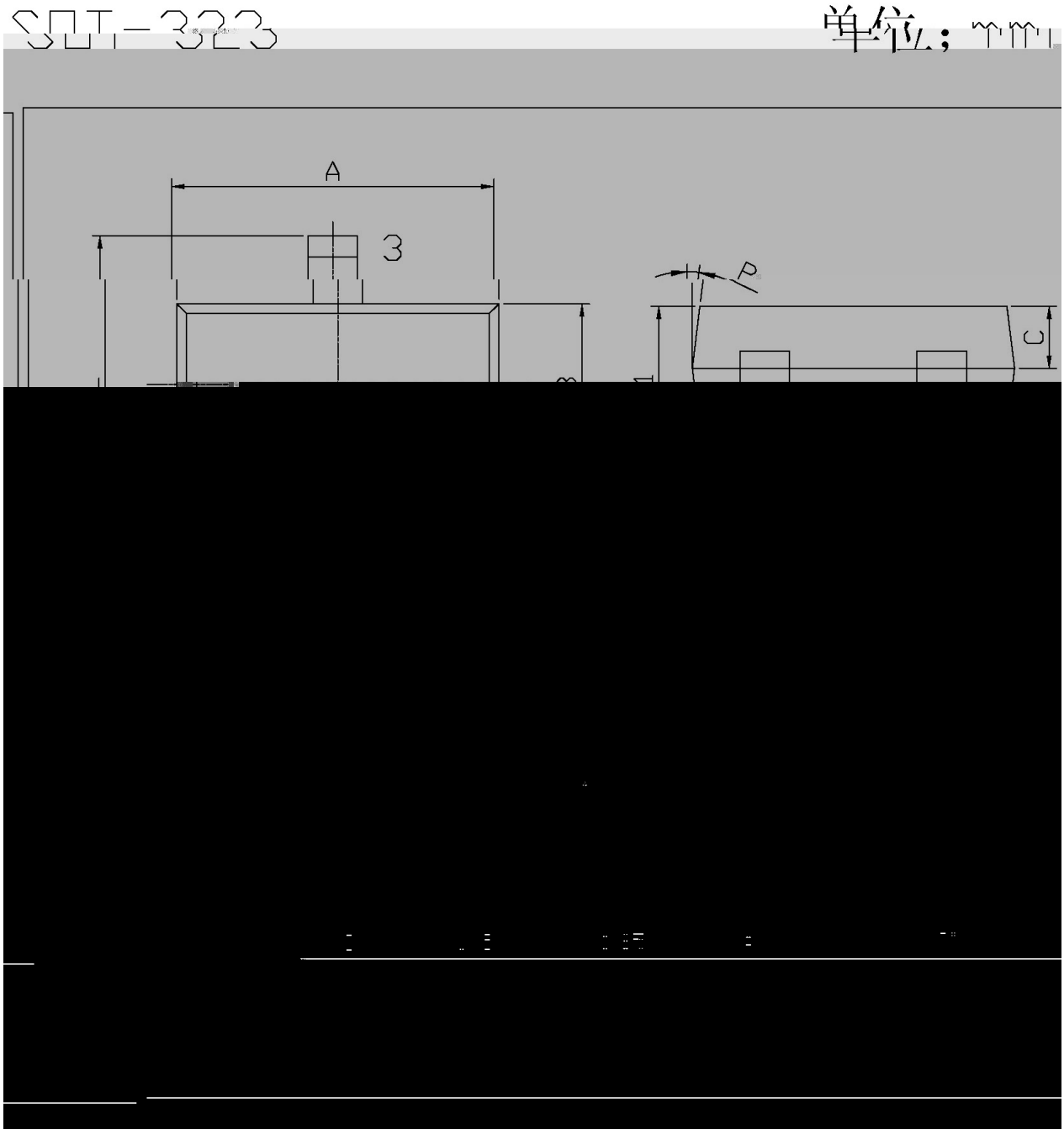
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	V_{CC}=-5.0V I_O=-100μA	-0.3			V
	$V_{I(on)}$	V_O=-0.3V I_O=-20mA			-3	V
Output Voltage	$V_{O(on)}$	I_O=-10mA I_I=-0.5mA			-0.3	V
Input Current	I_I	V_I=-5.0V			-7.2	mA
Output current	$I_{O(off)}$	V_{CC}=-50V V_I=0V			-0.5	μA
DC Current Gain	G_I	V_O=-5.0V I_O=-5mA	33			
Transition Frequency	f_T	V_O=-10V I_O=-5.0mA f=100MHz		250		MHz
Resistance1	R_1		0.7	1	1.3	KΩ
Resistance Ratio	R_2/R_1		8	10	12	

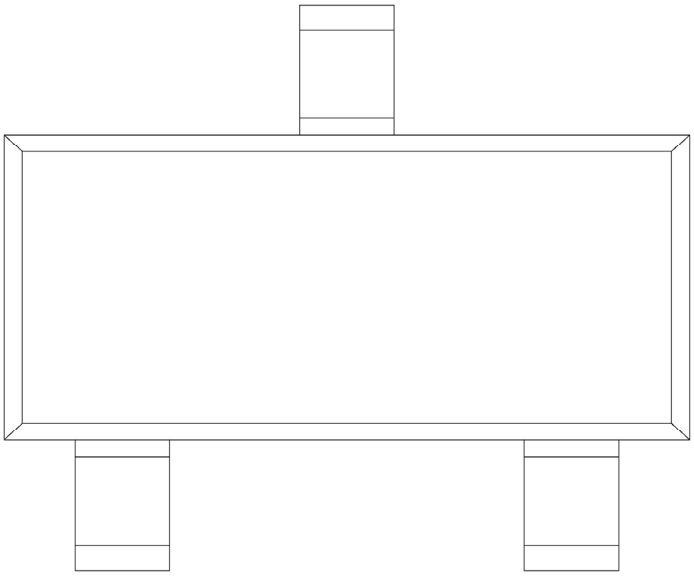
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



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Note:

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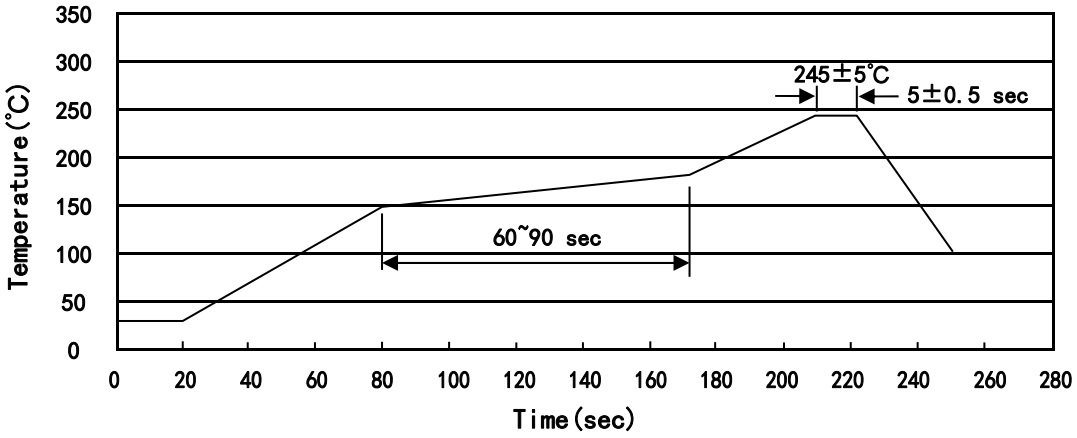

Note:

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	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices