

/ Descriptions

SOT-23

NPN

Silicon NPN Digital transistor in a SOT-23 Plastic Package.

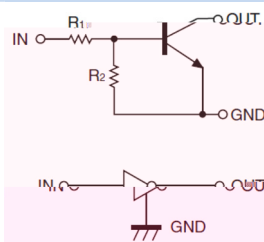
/ Features

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

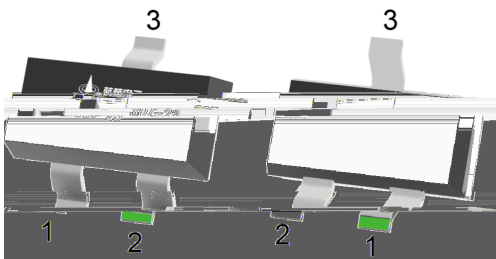
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN 1 IN PIN 2 GND PIN 3 OUT

/ hFE Classifications & Marking

Marking	H64
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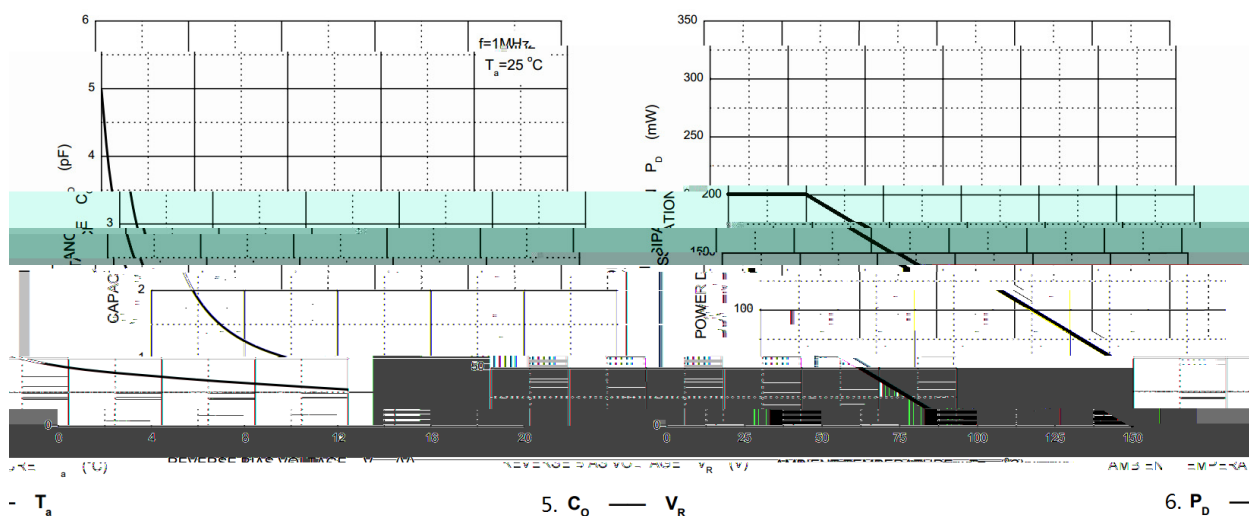
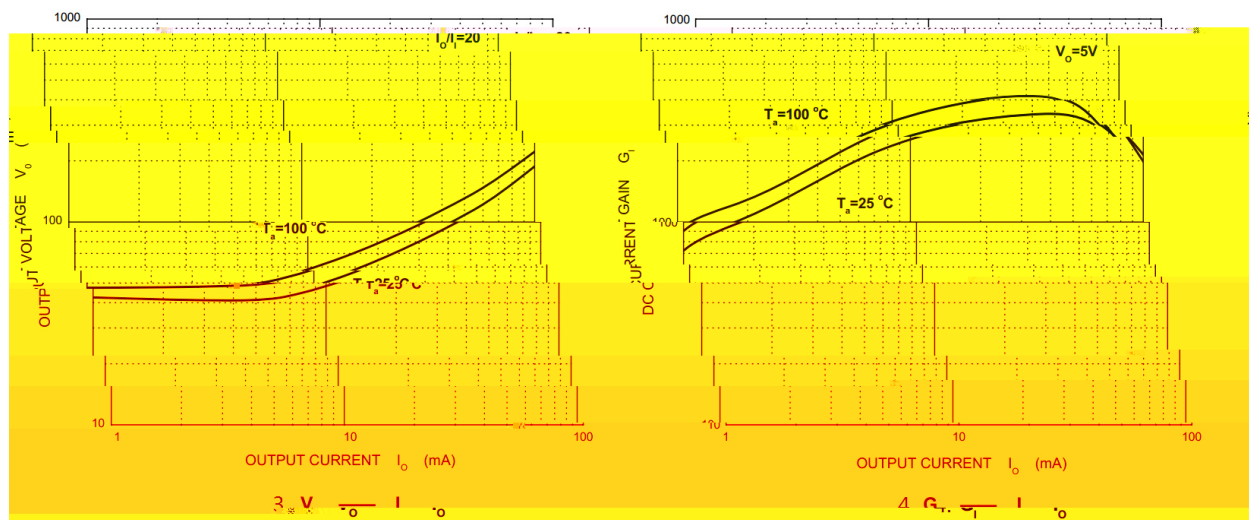
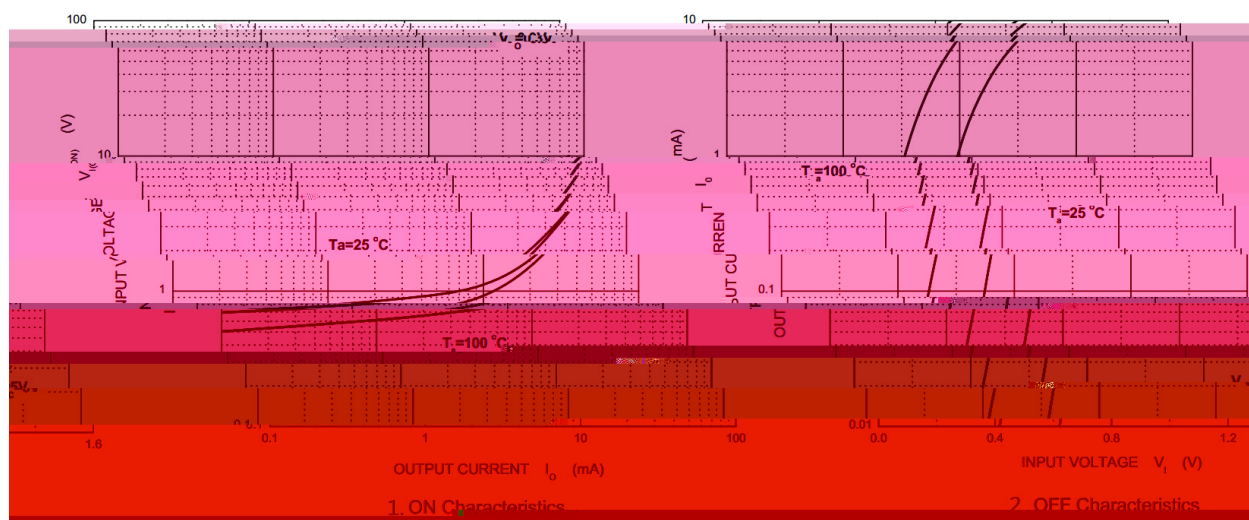
/ Absolute Maximum Ratings($T_a=25$)

Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	-6~40	V
Output Current	I_o	70	mA
Peak Collector Current	I_{CM}	100	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics($T_a=25$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage(OFF)	$V_{I(off)}$	$V_{CC}=5.0V$ $I_o=100\mu A$	0.3			V
Input Voltage(ON)	$V_{I(on)}$	$V_o=0.3V$ $I_o=1mA$			1.4	V
Output Voltage	$V_{O(on)}$	$I_o=5mA$ $I_i=0.25mA$		0.1	0.3	V
Input Current	I_i	$V_i=5.0V$			0.88	mA
Output Cut-off Current	$I_{O(off)}$	$V_{CC}=50V$ $V_i=0V$			0.5	μA
DC Current Gain	G_I	$V_o=5.0V$ $I_o=5.0mA$	68			
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=5.0mA$ $f=100MHz$		250		MHz
Resistance1	R_1		7	10	13	K Ω
Resistance Ratio	R_2/R_1		3.7	4.7	5.7	

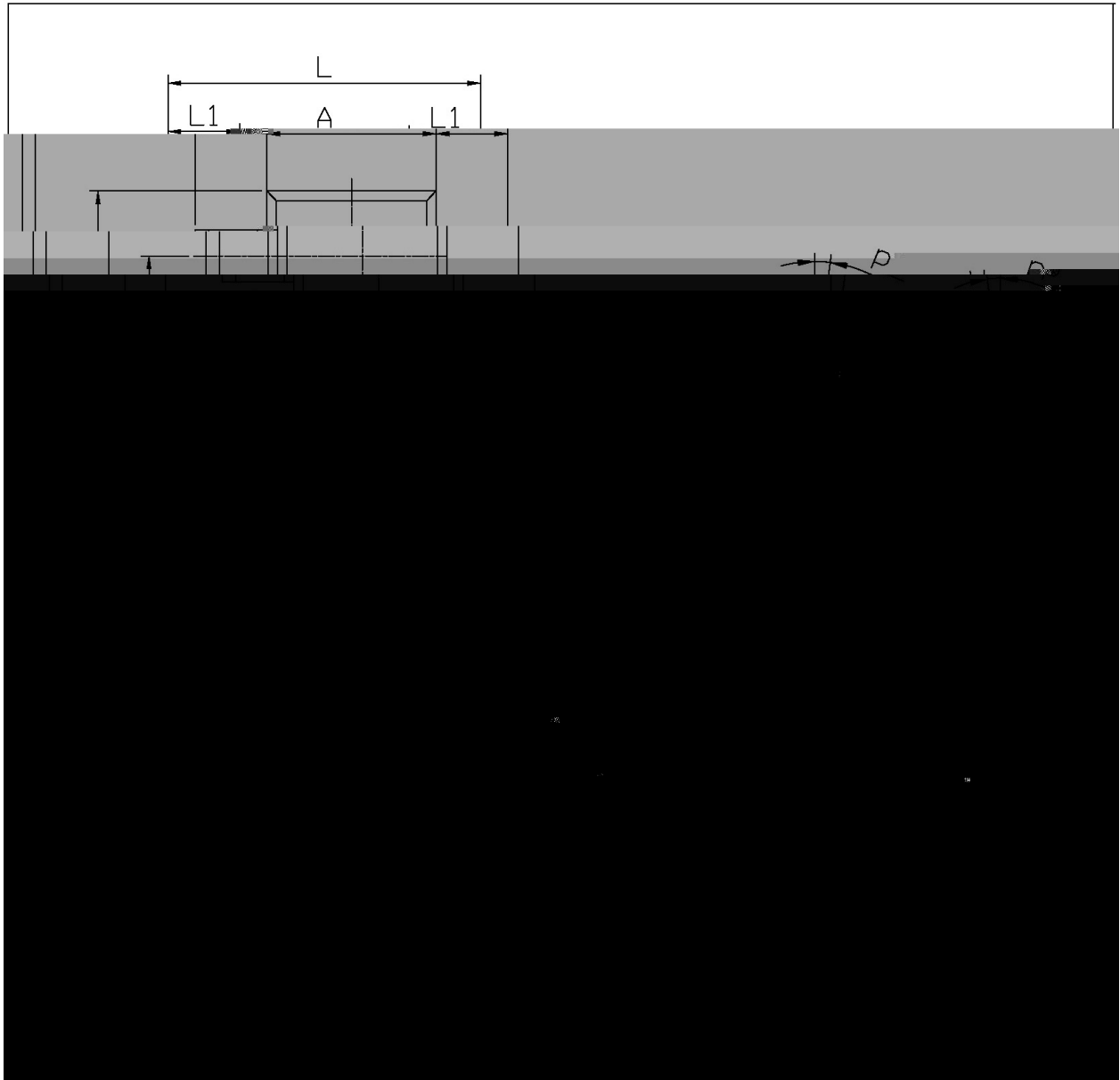
/ Electrical Characteristic Curve



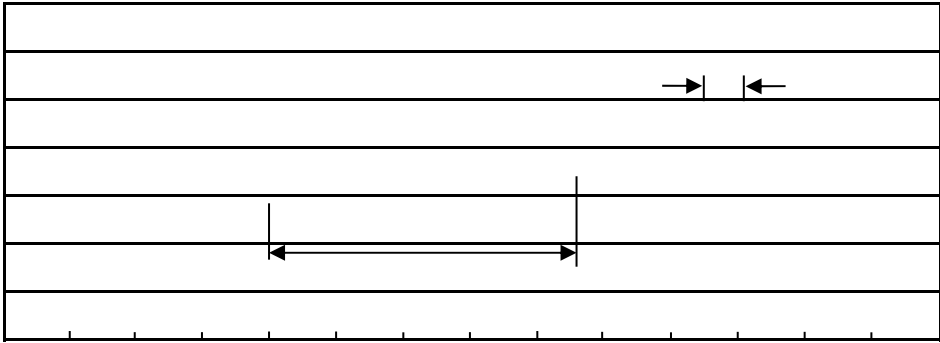
/ Package Dimensions

SOT-23

单位: mm



() / 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

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)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices