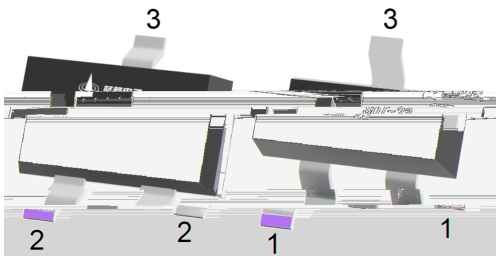
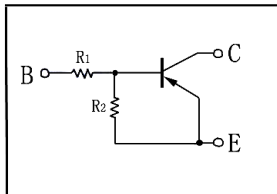


SOT-23 PNP Silicon PNP Digital transistor in a SOT-23 Plastic Package.

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

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



PIN 1 Base PIN 2 Emitter PIN 3 Collector

Marking	HE13
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Parameter	Symbol	Rating	Unit
Output Voltage	V_{CC}	-50	V
Input Voltage	V_{IN}	-30	V
		5.0	V
Output Current	I_O	-100	mA
Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Voltage	$V_{I(off)}$	$V_{CC}=-5.0V$ $I_O=-100 A$	-0.5			V
	$V_{I(on)}$	$V_O=-0.3V$ $I_O=-5.0mA$			-1.3	V
Output Voltage	$V_{O(on)}$	$I_O=-5.0mA$ $I_I=-0.25mA$		-0.1	-0.3	V
Input Current	I_I	$V_I=-5.0V$			-1.8	mA
Output Cut-off Current	$I_{O(off)}$	$V_{CC}=-50V$ $V_I=0V$			-0.5	A
DC Current Gain	G_I	$V_O=-5.0V$ $I_O=-10mA$	80			
Transition Frequency	f_T	$V_{CE}=-10V$ $I_E=5.0mA$ $f=100MHz$		250		MHz
Resistance1	R_1		3.29	4.7	6.11	K
Resistance Ratio	R_2/R_1		8.0	10	12	

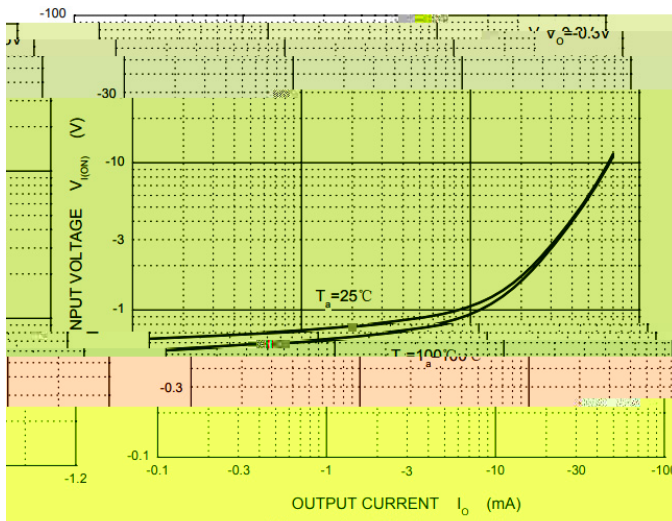


Figure 1: ON Characteristics

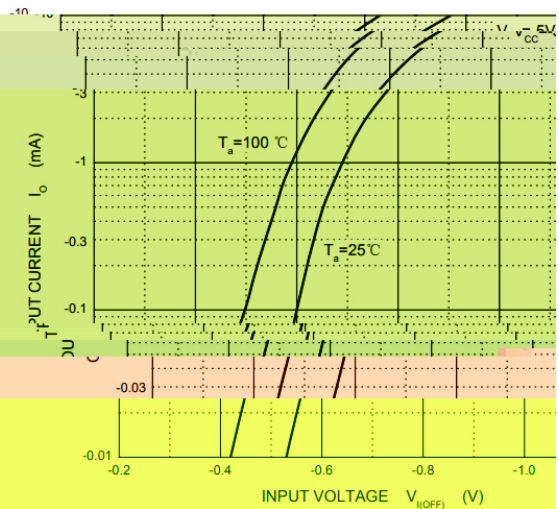


Figure 2: OFF Characteristics

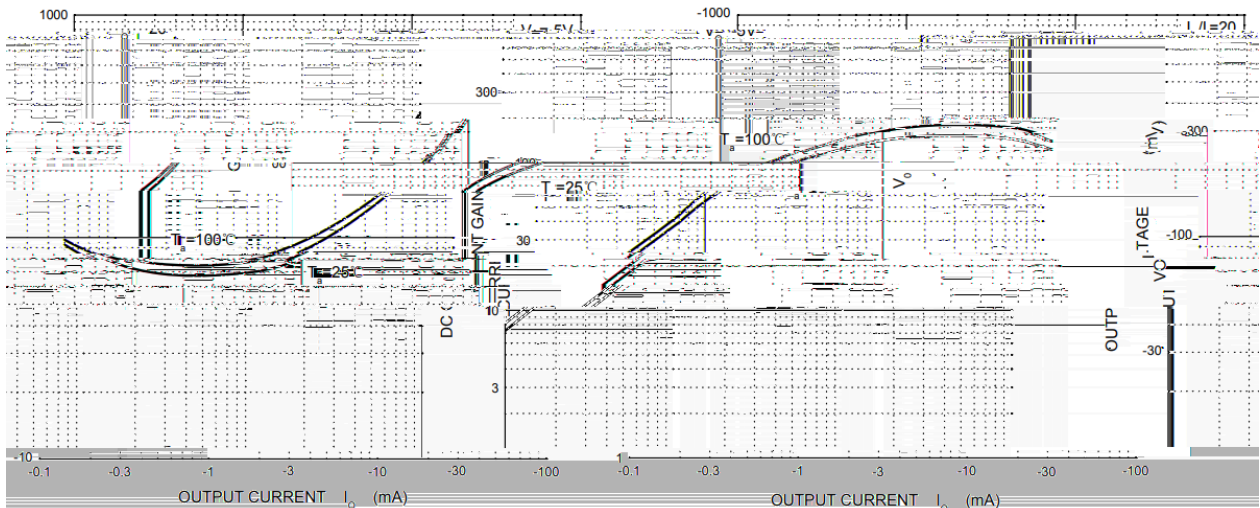
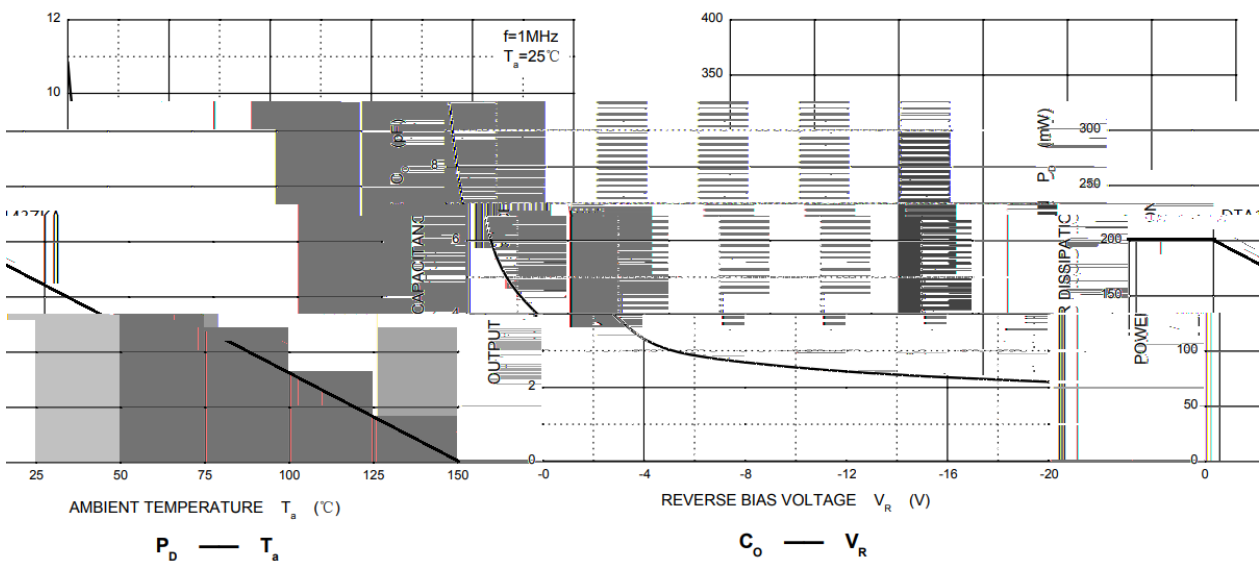


Figure 3: G_l — I_o

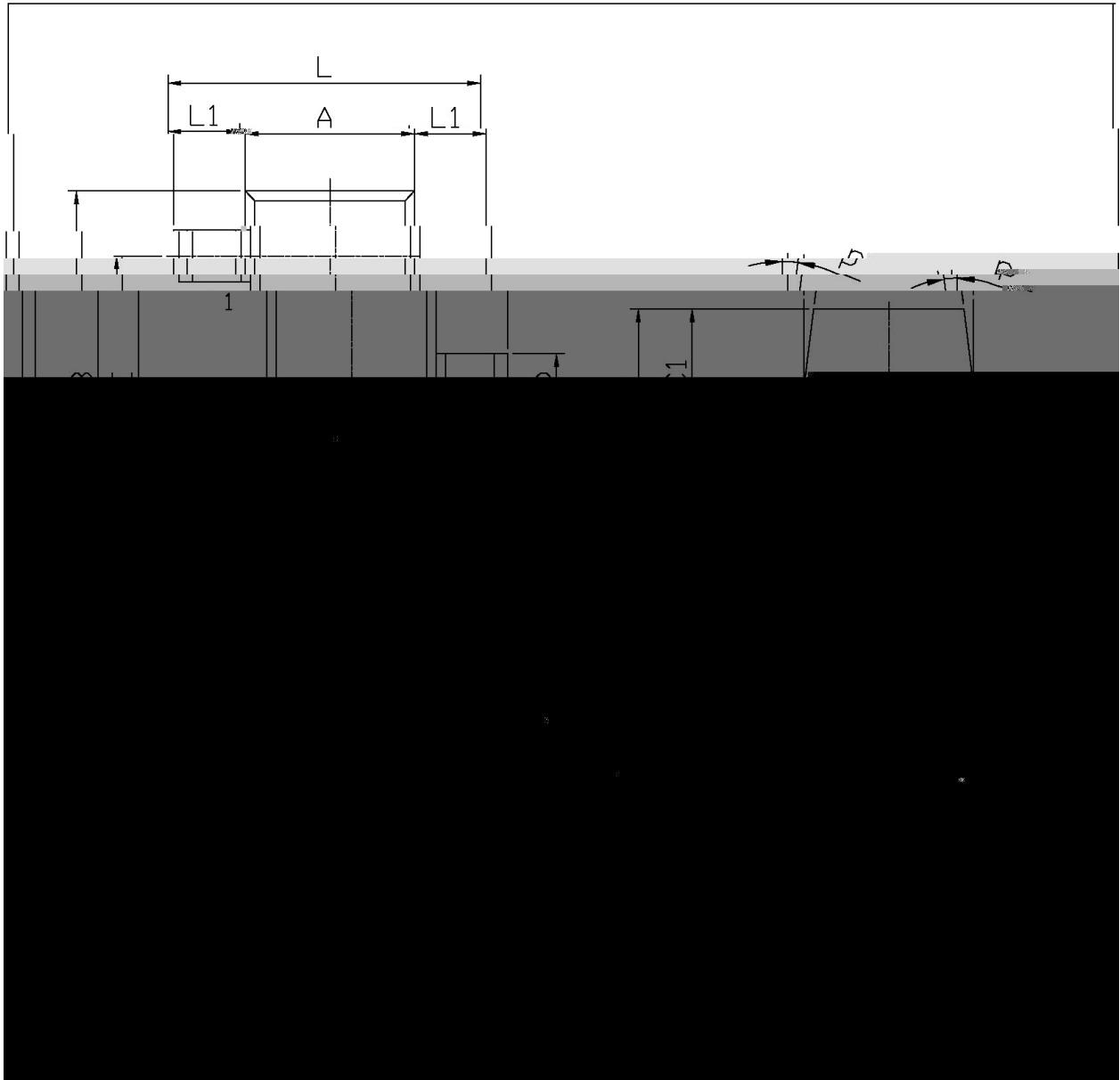


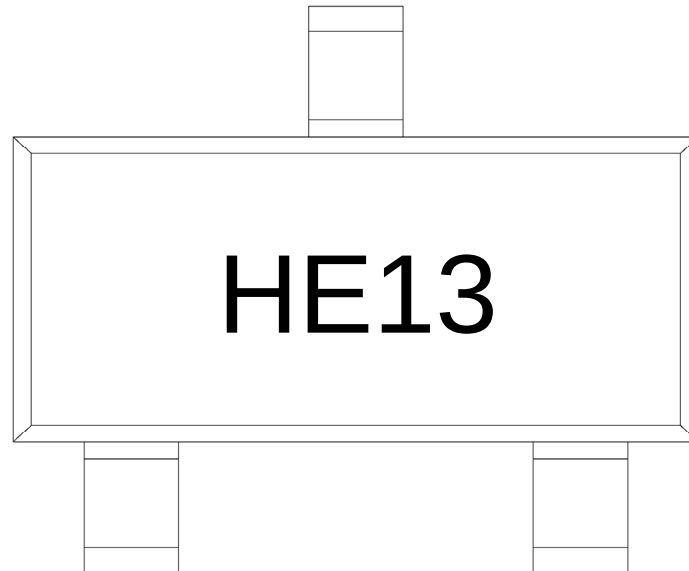
P_D — T_a

C_o — V_R

SOT-23

单位: mm





H

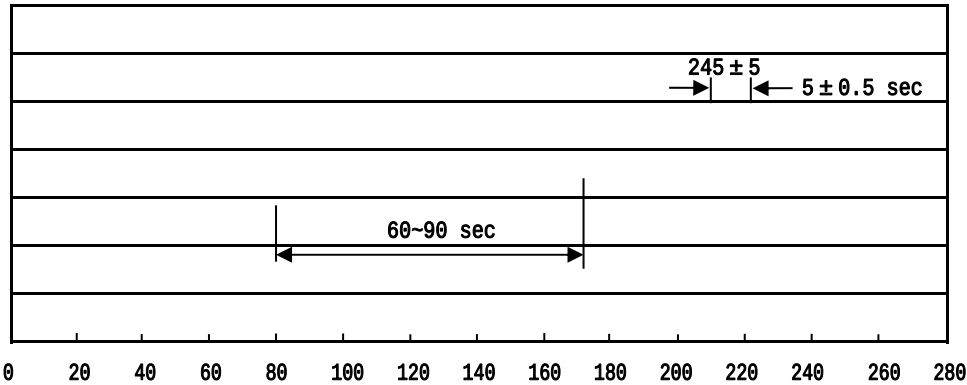
E13

Note:

H Company Code

E13 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.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

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-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205