

/ Descriptions

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

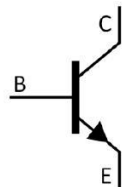
/ Features

S8550MG
Complementary pair with S8550MG,HF Product.

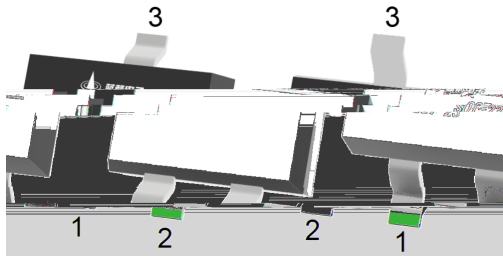
/ Applications

Power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	B	C	D
h _{FE(1)} Range	85~160	120~200	160~300
Marking	GY3B	GY3C	GY3D

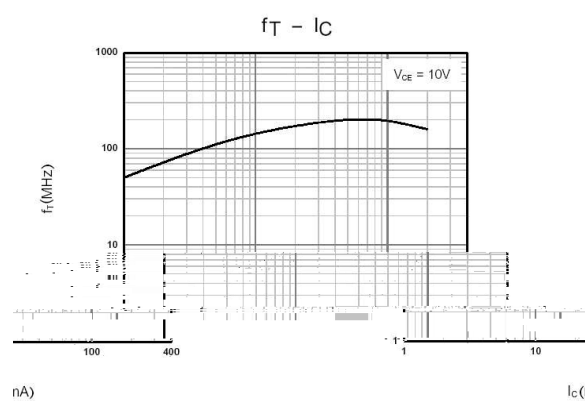
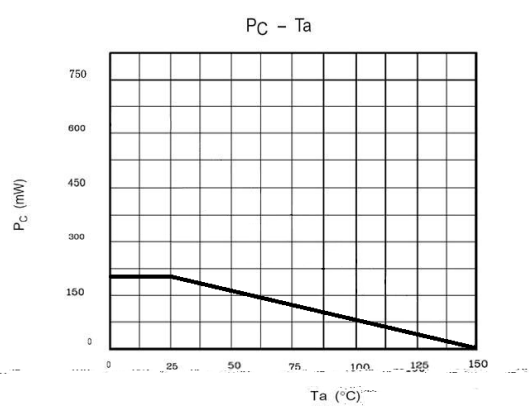
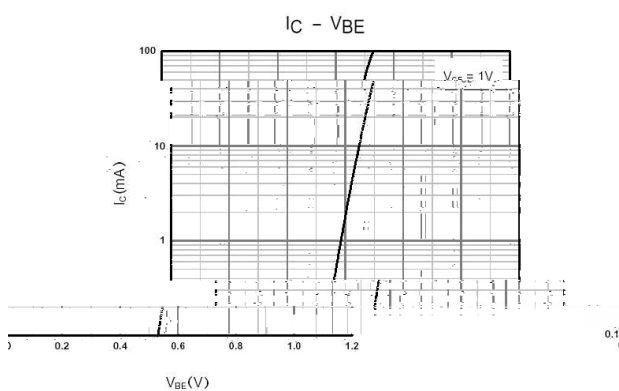
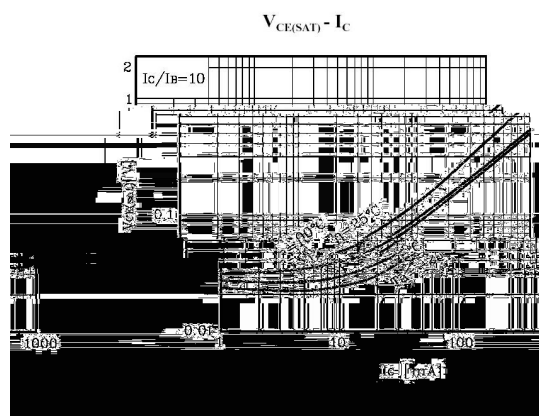
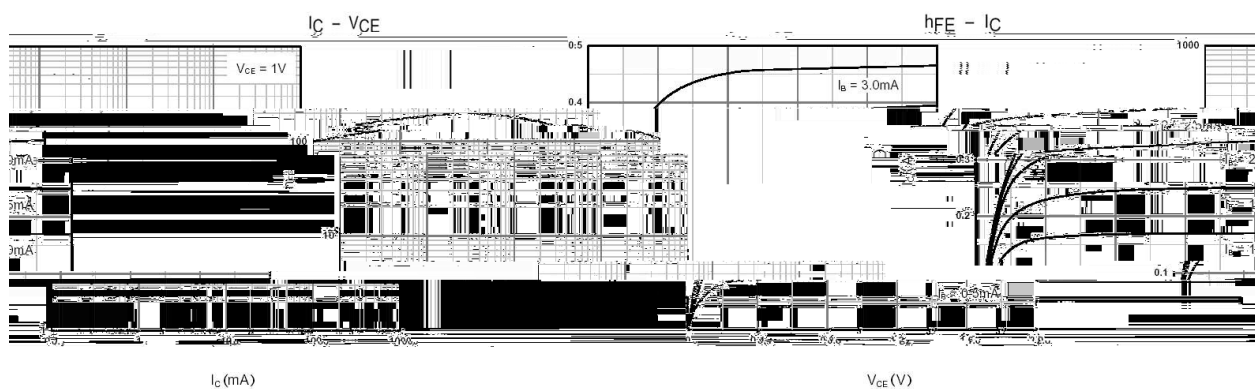
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	40	V
Collector to Emitter Voltage	V _{CEO}	25	V
Emitter to Base Voltage	V _{EBO}	6.0	V
Collector Current	I _C	800	mA
Base Current	I _B	200	mA
Collector Power Dissipation	P _C	200	mW
Junction Temperature	T _j	150	
Storage Temperature Range	T _{stg}	-55~150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V _{CBO}	I _C =0.1mA I _E =0	40			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =2.0mA I _B =0	25			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =0.1mA I _C =0	6.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =35V I _E =0			0.1	A
Emitter Cut-off Current	I _{EBO}	V _{EB} =6.0V I _C =0			0.1	A
DC Current Gain	h _{FE(1)}	V _{CE} =1.0V I _C =100mA	85		300	
	h _{FE(2)}	V _{CE} =1.0V I _C =500mA	40			
	h _{FE(3)}	V _{CE} =1.0V I _C =5.0mA	45			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA I _B =50mA		0.28	0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =500mA I _B =50mA		0.98	1.2	V
Base-Emitter Voltage	V _{BE}	V _{CE} =1.0V I _C =10mA		0.66	1.0	V
Transition Frequency	f _T	V _{CE} =10V I _C =50mA	100	190		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V I _E =0 f=1.0MHz		9.0		pF

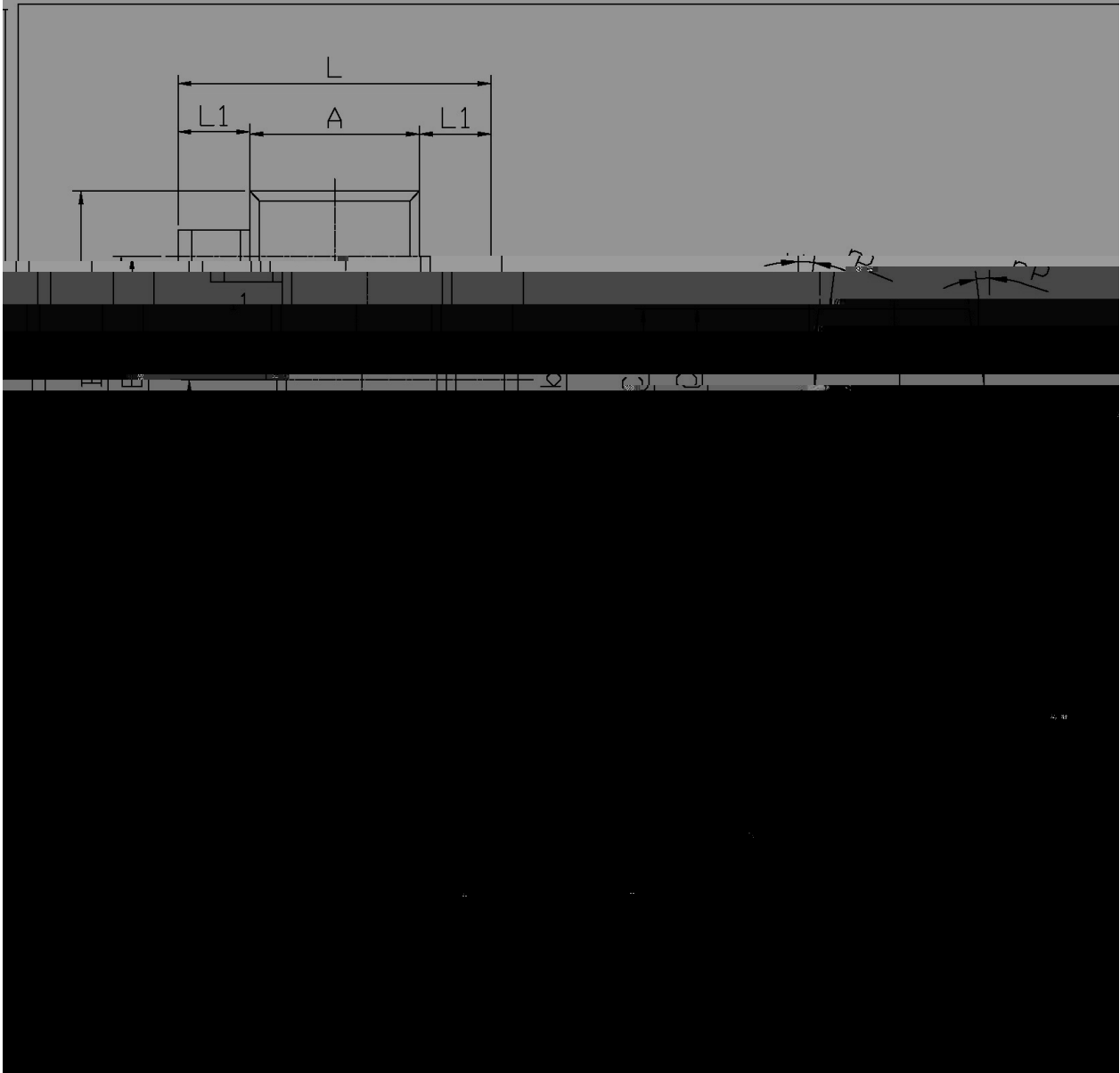
/ Electrical Characteristic Curve



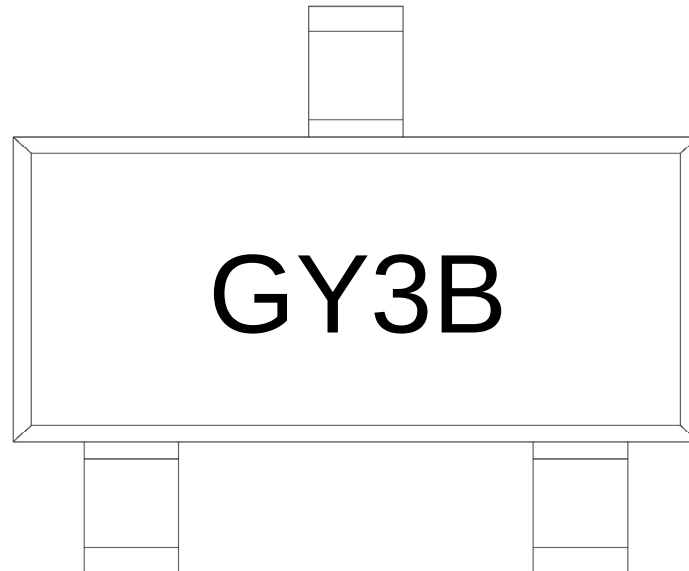
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



G

Y3

B h_{FE}

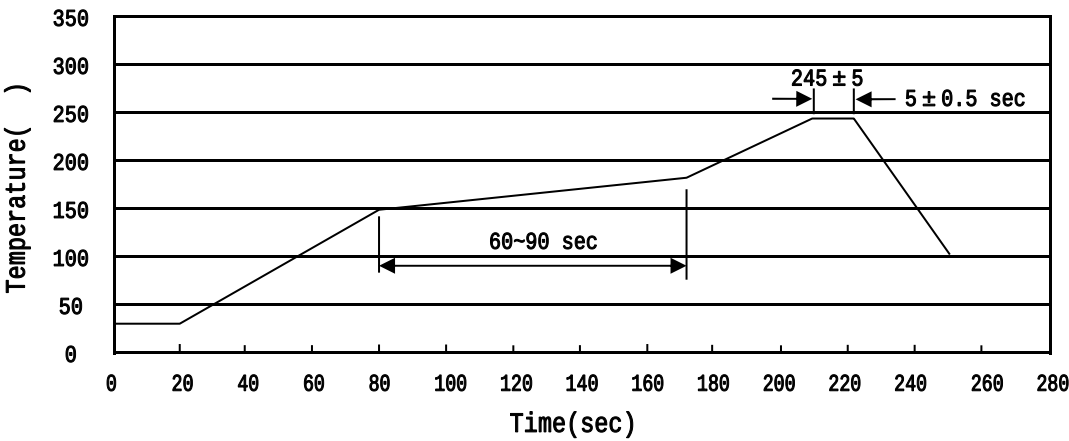
Note:

G HF Product Code

Y3 Product Type Code

B h_{FE} Classifications Symbol 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 Time:10±1 sec

/ Packaging SPEC.

/ 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

/ Notices