S8050MG

Rev.I May.-2023

DATA SHEET

ˇYت / Descriptions

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

◕ È / Features

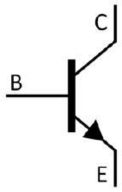
S8550MG

Complementary pair with S8550MG,HF Product.

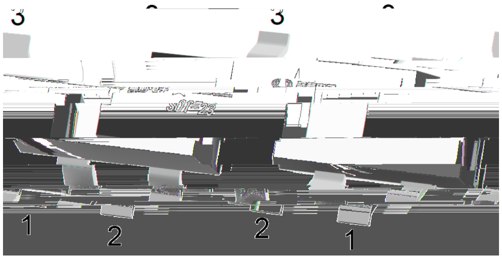
ช ي / Applications

Power amplifier applications.

Ŋق ặ ؛ ع / Equivalent Circuit



ẫ ﾉ ư / Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

ặ ২ z էˍ ʜ ב / 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

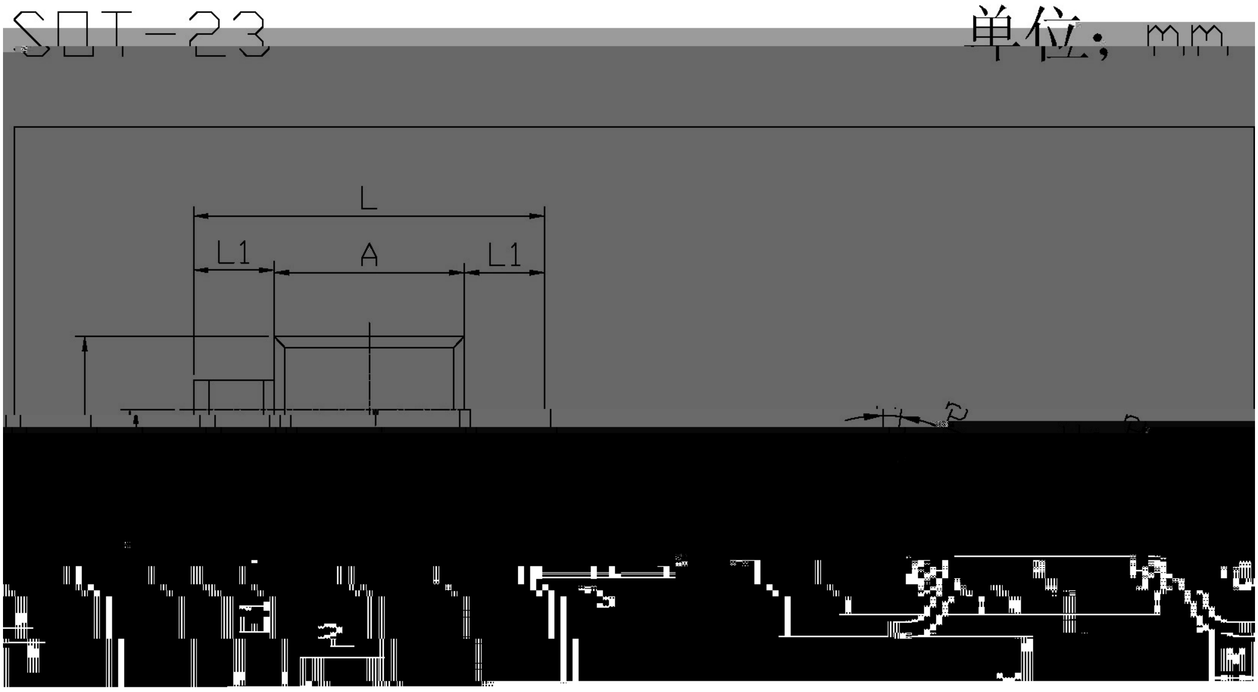
ώ஋ǯ℥Ą / Absolute Maximum Ratings(Ta=25ɹ)

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	

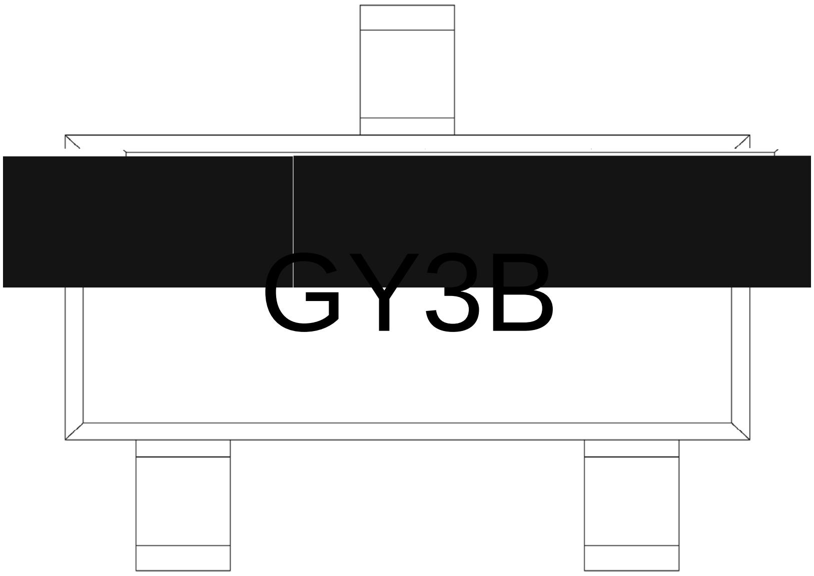
ƨ ʎǯ℥Ą / Electrical Characteristics(Ta=25ɹ)

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	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=6.0V I_C=0			0.1	μA
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

ᵘ ẺỒḼ ʄ / Package Dimensions



ł˛ Ŀ"Ω / Marking Instructions



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G

Y3

B hFE

Note:

G	HF Product Code
Y3	Product Type Code
B	h_{FE} Classifications Symbol Code

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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