/ Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package.

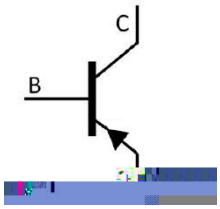
/ Features

Complementary pair with 2SD601A.

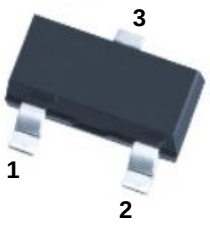
/ Applications

General power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	160~260	210~340	290~460
Marking	H1BQ	H1BR	H1BS

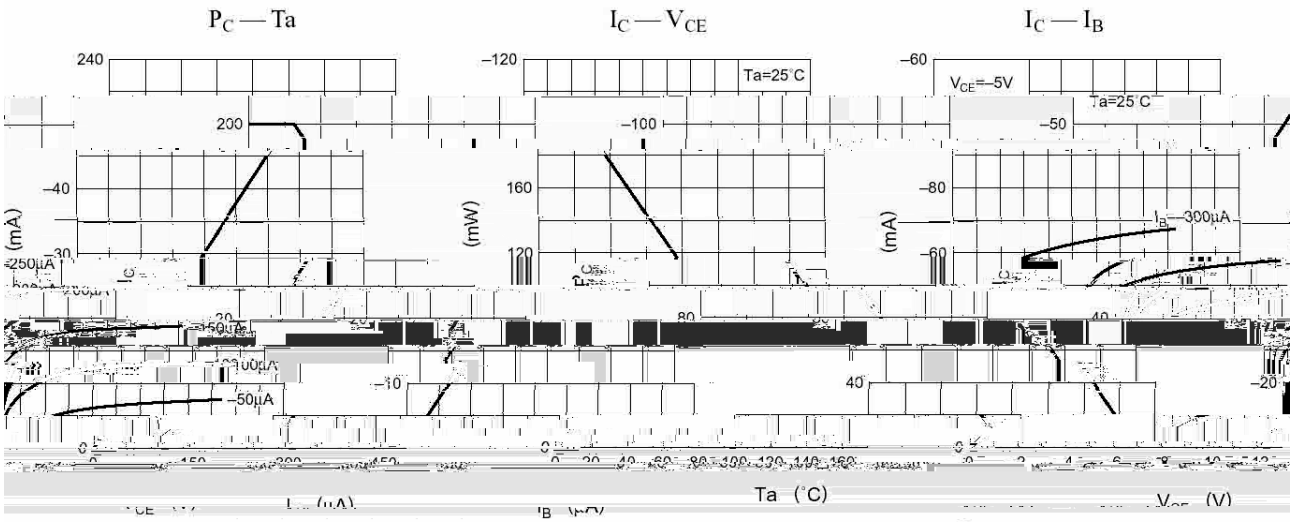
/ Absolute Maximum Ratings(Ta=25)

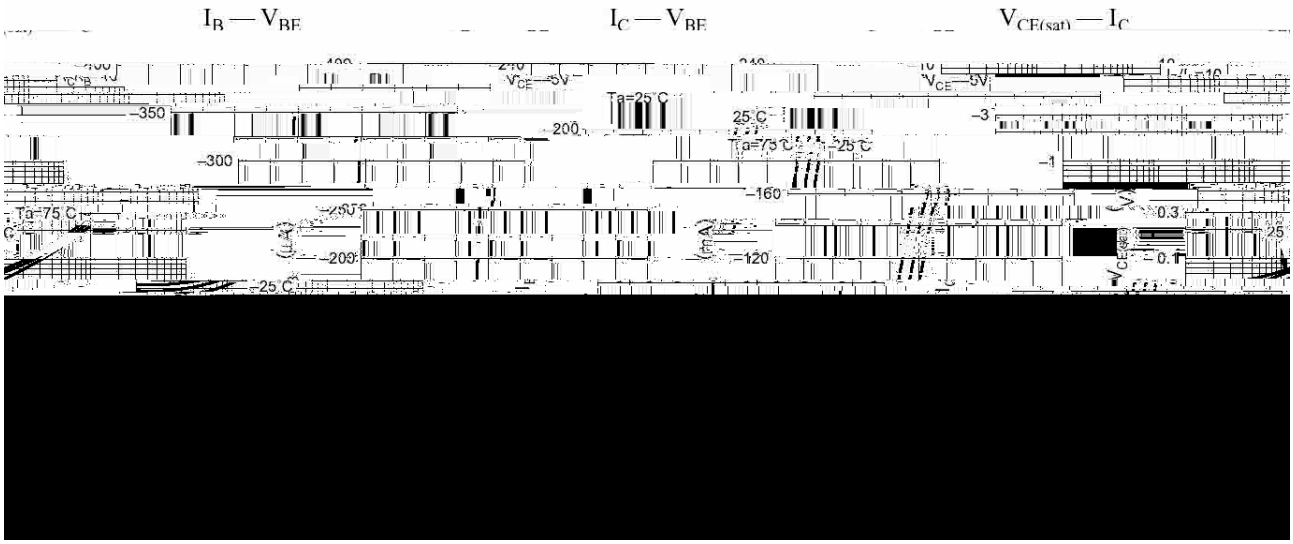
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-45	V
Collector to Emitter Voltage	V_{CEO}	-45	V
Emitter to Base Voltage	V_{EBO}	-7.0	V
Collector Current	I_C	-100	mA
Collector Current(pulse)	I_{CP}	-200	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

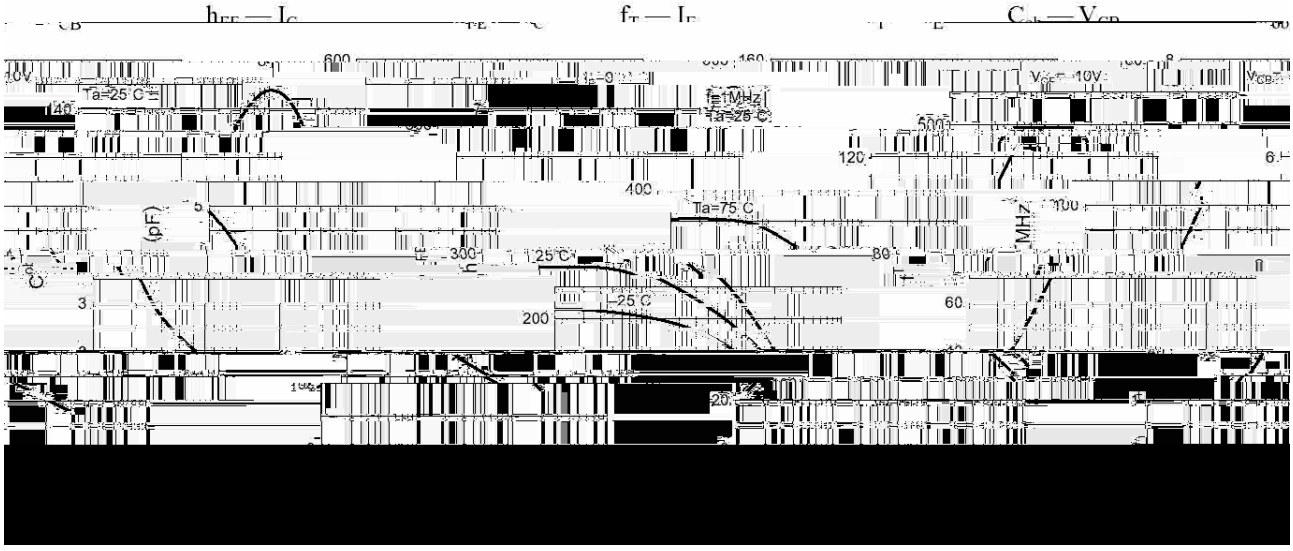
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-10 A I_E=0	-45			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-2mA I_B=0	-45			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-10 A I_C=0	-7			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-20V I_E=0			-0.1	A
Emitter Base Cut-Off Current	I_{EBO}	V_{CE}=-10V I_B=0			-100	A
DC Current Gain	h_{FE}	V_{CE}=-10V I_C=-2mA	160		460	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-100mA I_B=-10mA		-0.3	-0.5	V
Transition Frequency	f_T	V_{CB}=-10V I_C=-1mA f=200MHz		80		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1MHz		2.7		pF

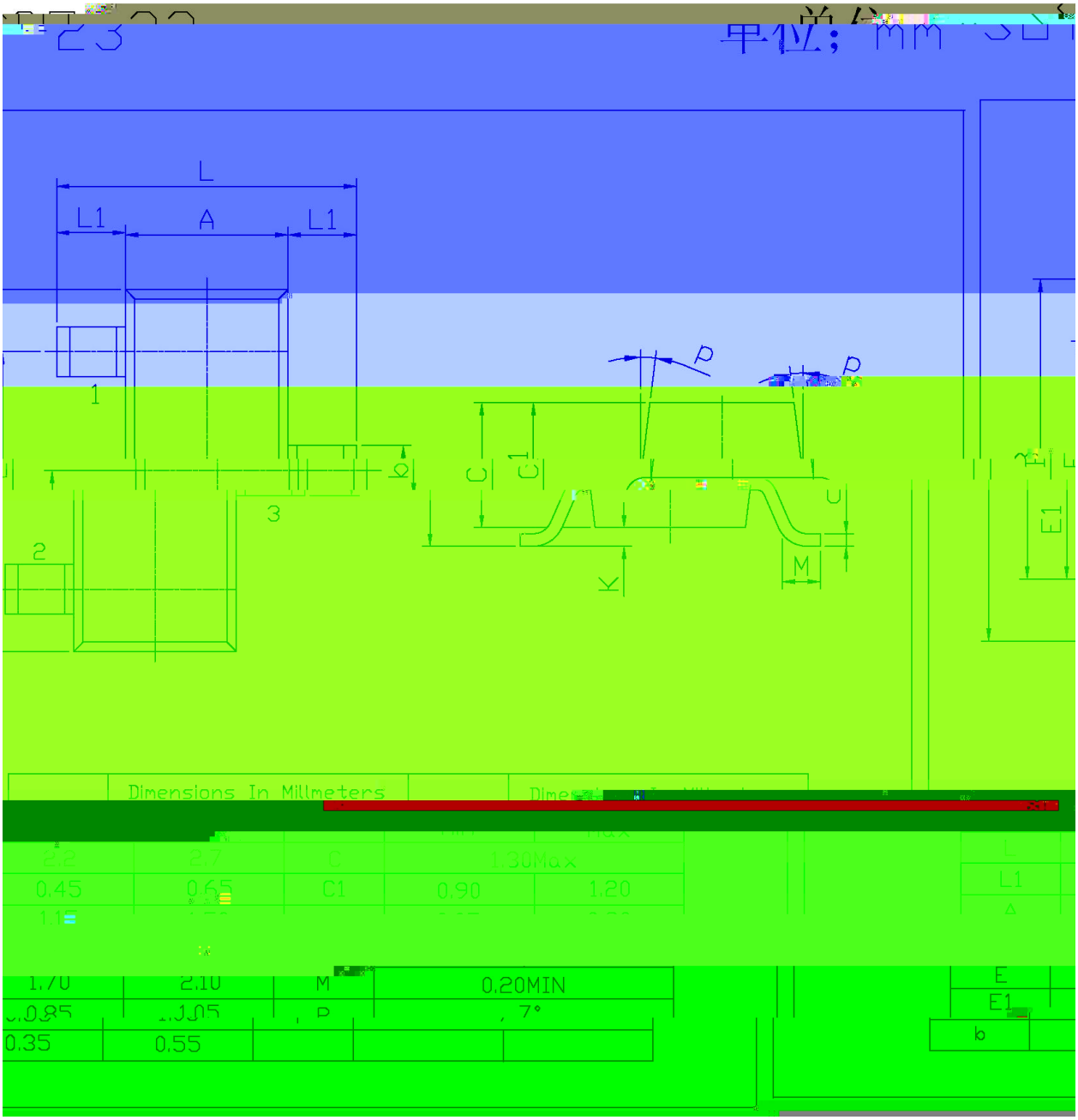
/ Electrical Characteristic Curve



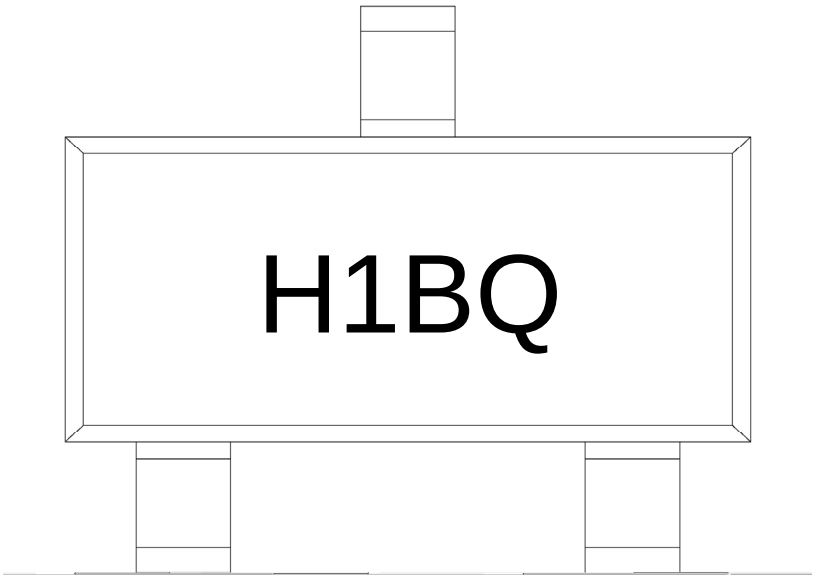




/ Package Dimensions



/ Marking Instructions



h_{FE}

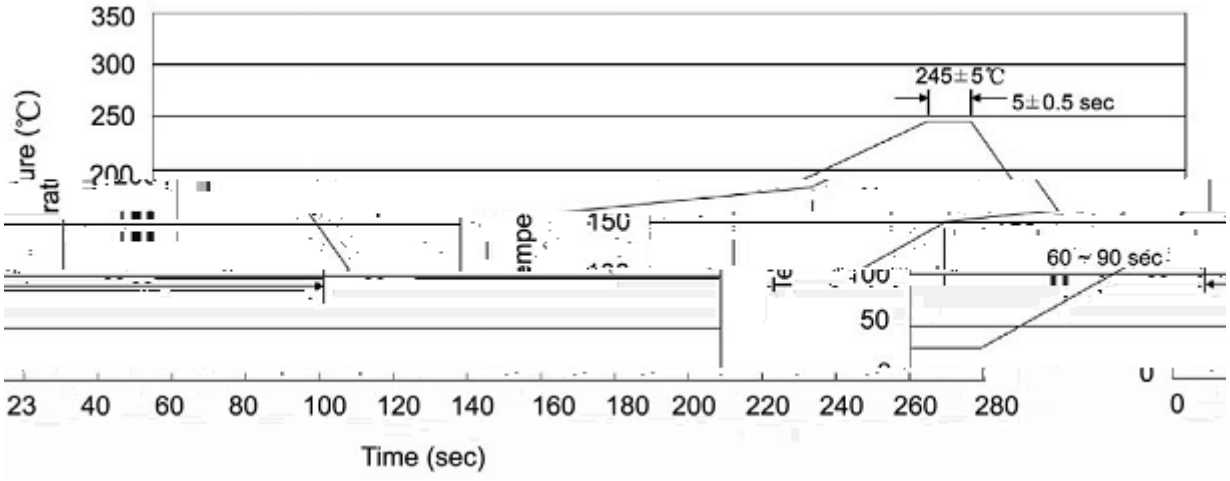
Note:

H: Company Code

1B: Product Type Code

Q: h_{FE} Classifications Symbol Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



	Note:
1 25 150 60 90sec;	1.Preheating:25~150 , Time:60~90sec.
2 245 5 5 0.5sec;	2.Peak Temp.:245 5 , Duration:5 0.5sec.
3 2 10 /sec.	3.