/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

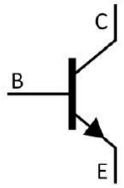
/ Features

Complementary to BCW68.

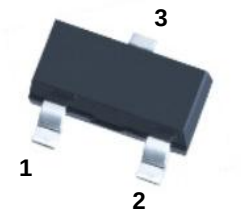
/ Applications

Medium power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

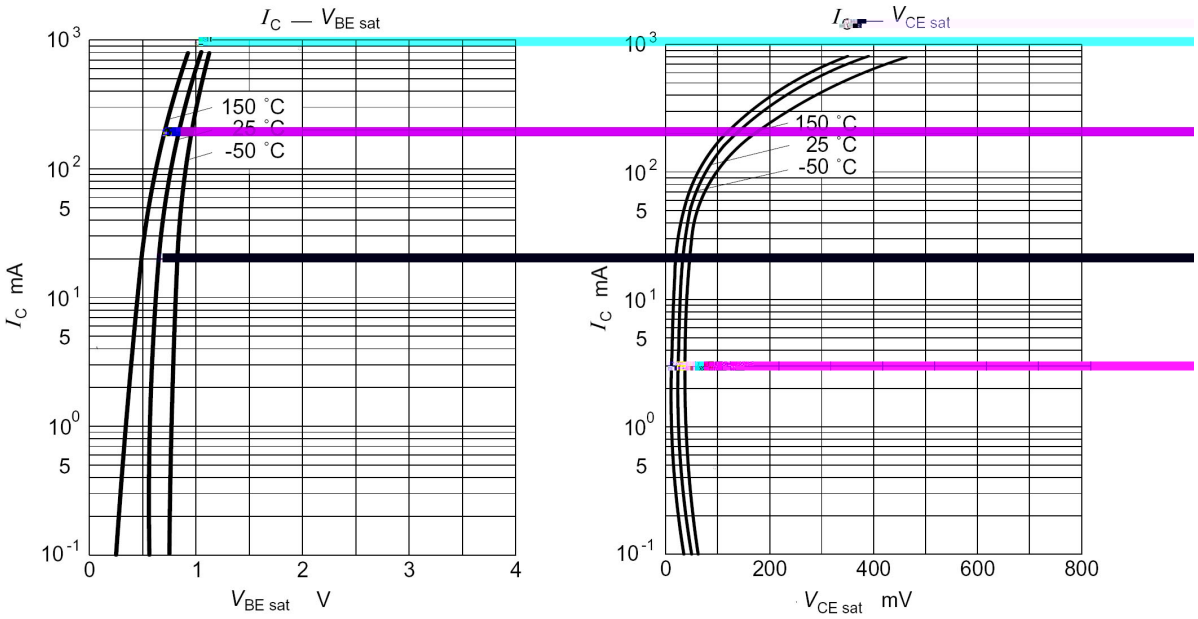
/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	F	G	H
h_{FE} Range	100～250	160～400	250～630
Marking	HDAO	HDAY	HDAG

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	75	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current(DC)	I_C	800	mA
Peak Collector Current	I_{CM}	1.0	A
Peak Base Current	I_B	100	mA
Collector Power Dissipation	P_C	330	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55～150	

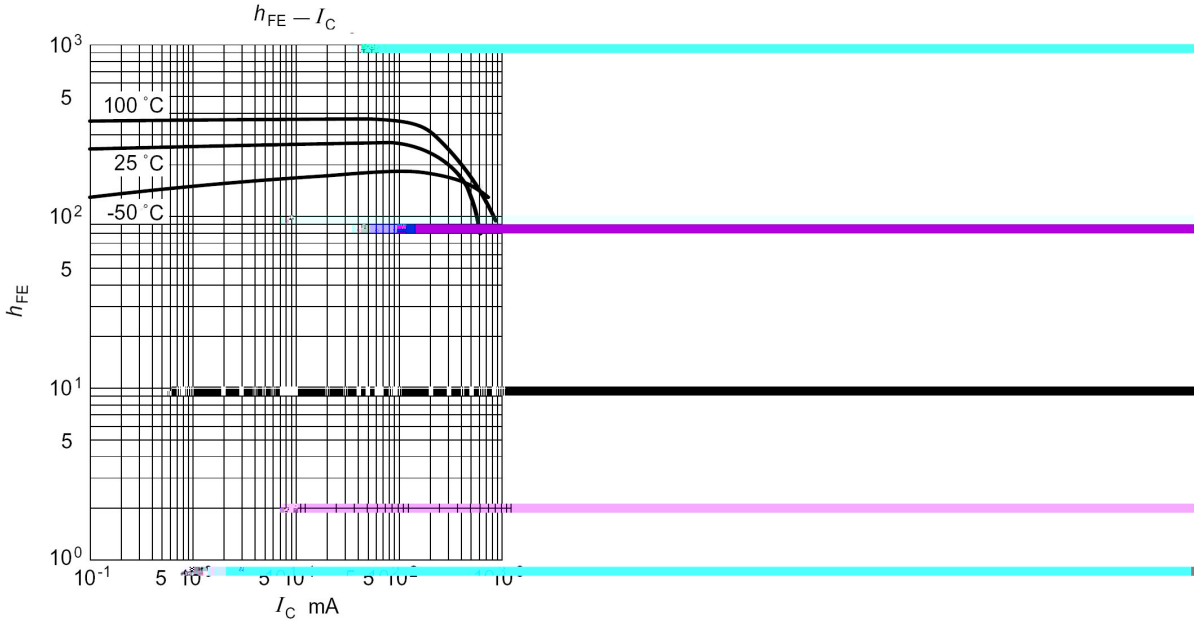
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10 A	75			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_{CEO}=10mA	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_{EBO}=10 A	5.0			V
Collector-Emitter Cut-off Current	I_{CES}	V_{CB}=45 V			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=4.0V			0.1	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V I_C=100mA	100		630	
	$h_{FE(2)}$	V_{CE}=1.0V I_C=10mA	75			
	$h_{FE(3)}$	V_{CE}=2.0V I_C=500mA	35			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	I_C=100mA I_B=10mA			0.3	V
	$V_{CE(sat)(2)}$	I_C=500mA I_B=50mA			0.7	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=500mA I_B=50mA			2.0	V

/ Electrical Characteristic Curve

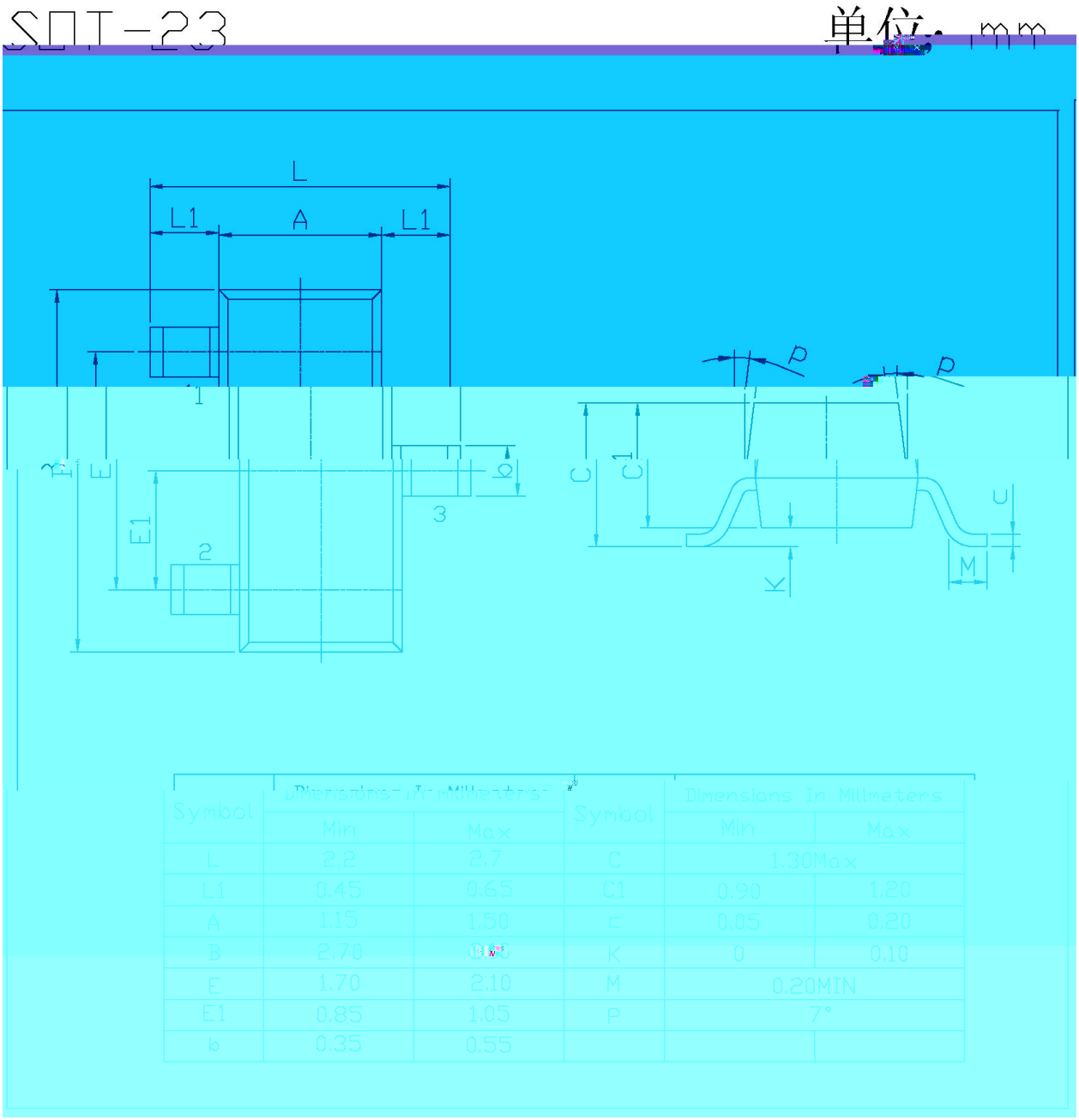


DC current gain $h_{FE} = f(I_C)$

V_{CE} = 1V

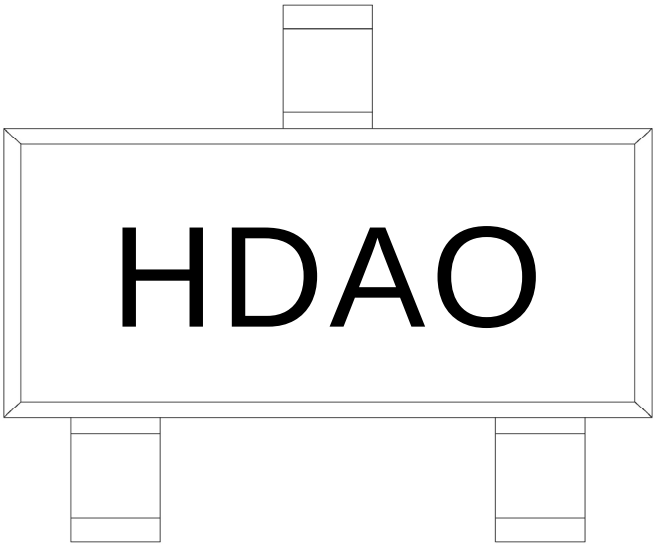


/ Package Dimensions



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			

/ Marking Instructions



H

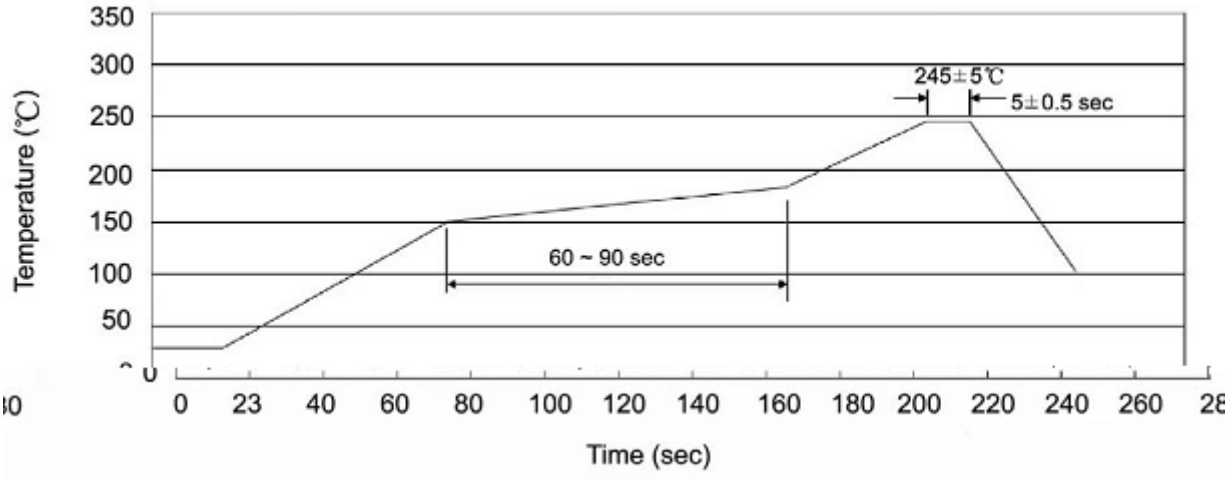
DAO

Note:

H: Company Code

DAO: Product Type 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. 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)
						″		

/ Notices