

/ Descriptions

SOT-23

NPN

Silicon NPN transistor in a SOT-23 Plastic Package.

/ Features

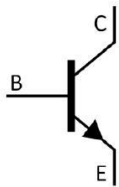
BCW68

Complementary to BCW68.

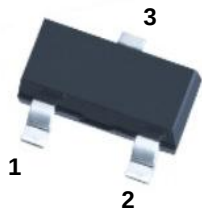
/ Applications

Medium power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

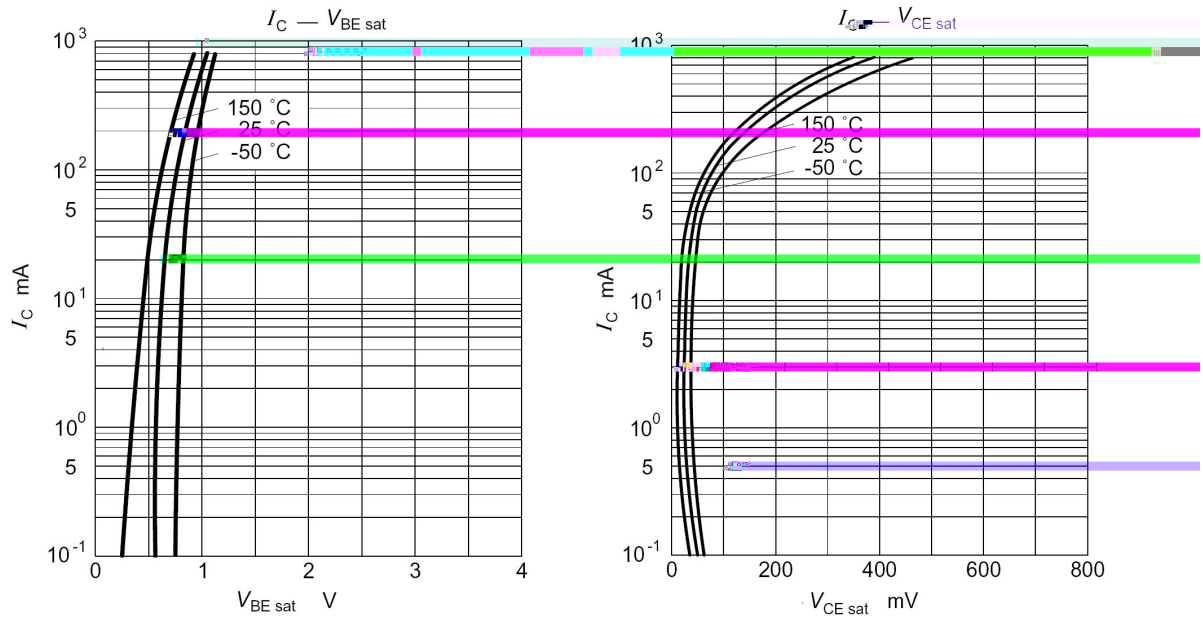
/ h_{FE} Classifications & Marking

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	

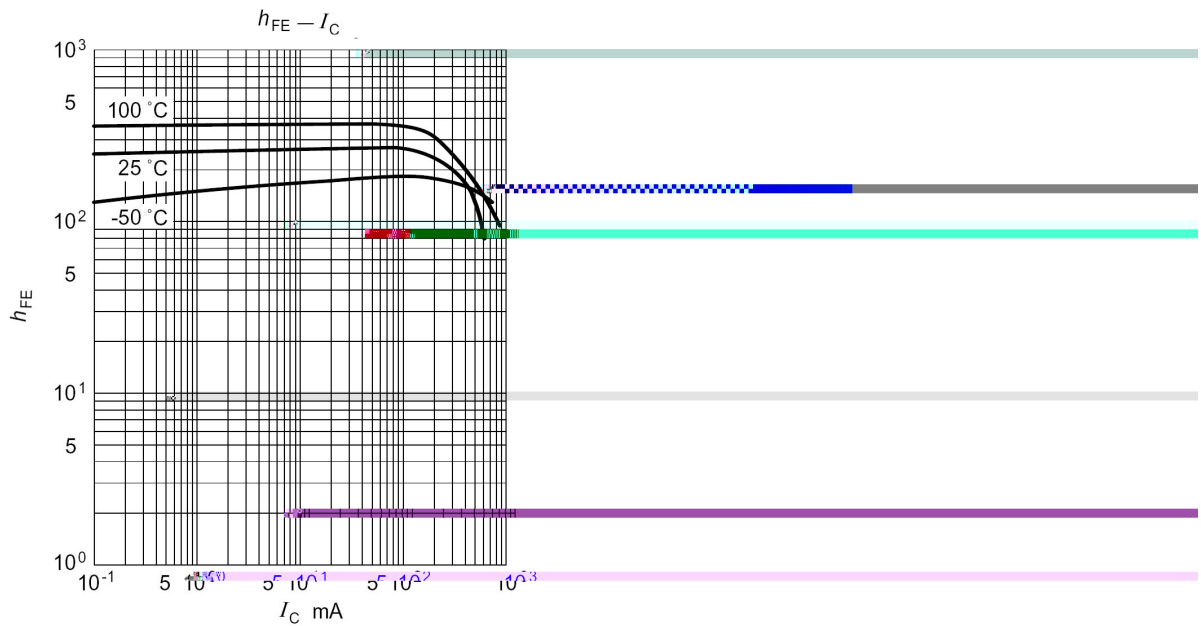
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\text{ A}$	75			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_{CEO}=10\text{mA}$	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_{EBO}=10\text{ A}$	5.0			V
Collector-Emitter Cut-off Current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

I Electrical Characteristic Curve



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

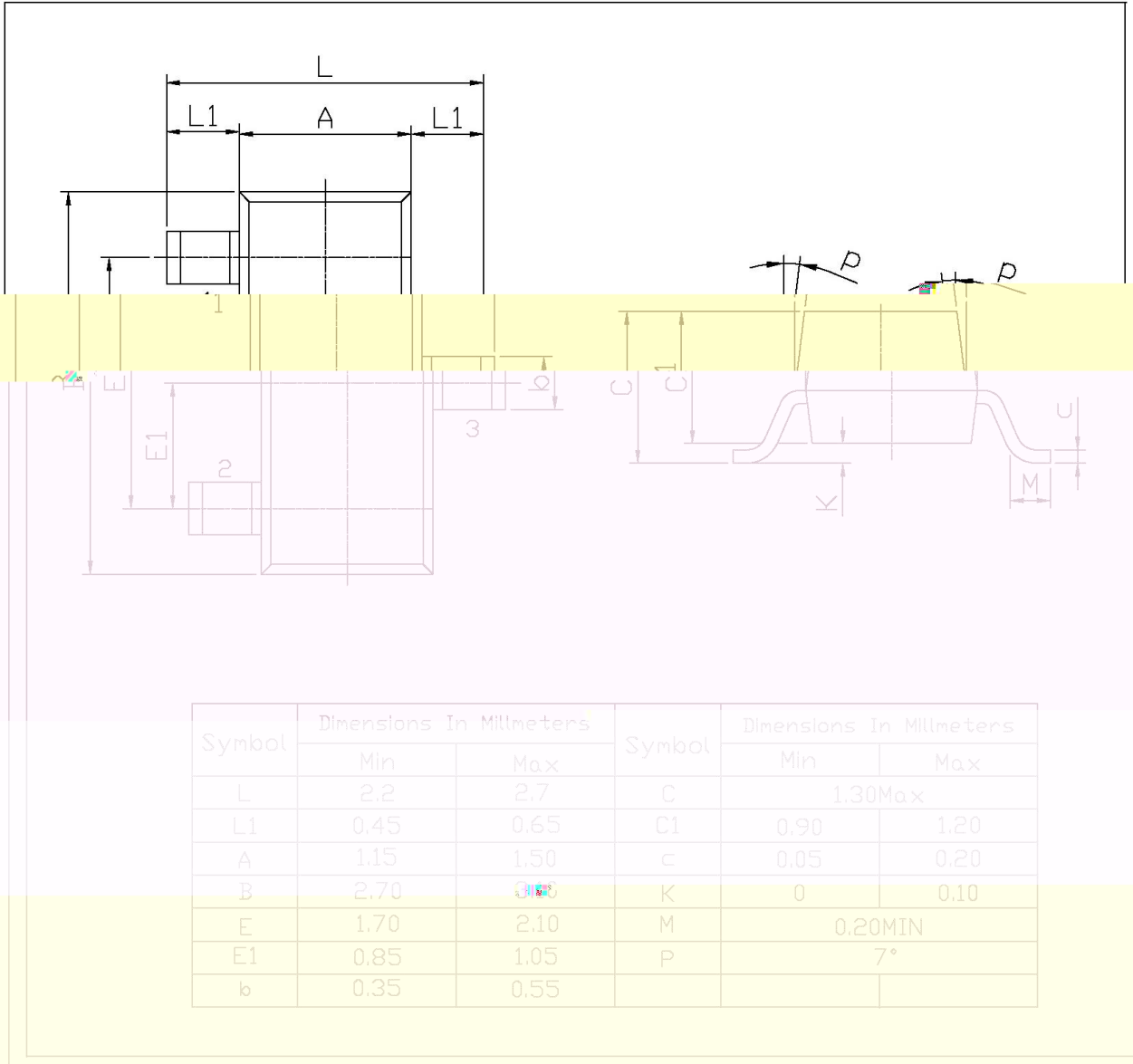
$V_{CE} = 1\text{V}$



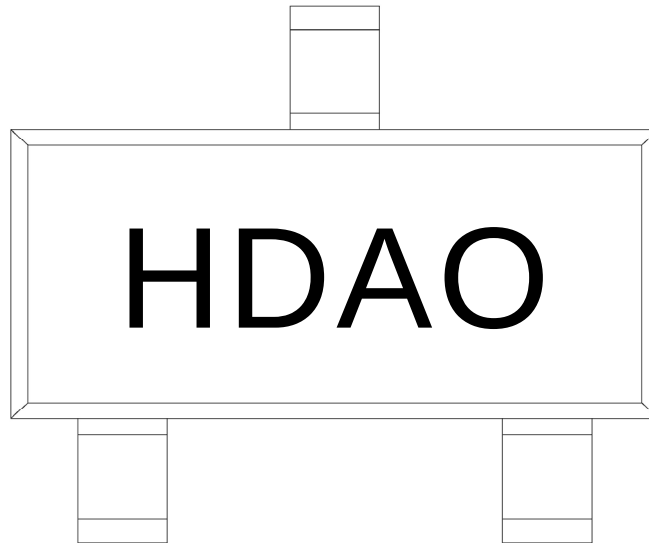
/ Package Dimensions

SOT-23

单位：mm



/ Marking Instructions



H

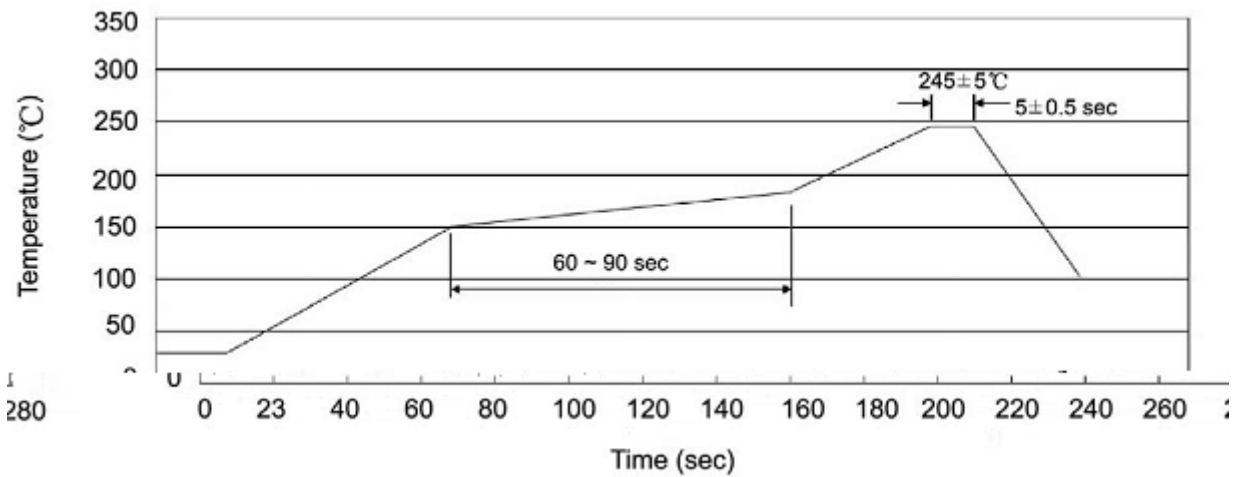
DAO

Note:

H: Company Code

DAO: Product Type Code

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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