

/ Descriptions

SOT-23

NPN

Silicon NPN transistor in a SOT-23 Plastic Package.

/ Features

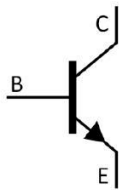
, 2SB1198K

High breakdown, low $V_{CE(sat)}$, complements the 2SB1198K.

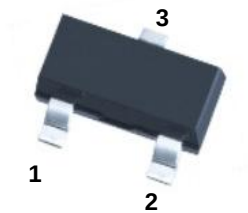
/ Applications

Medium power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1	Base	PIN 2	Collector	PIN 3	Emitter
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/ h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	Q	R
h _{FE} Range	120~270	180~390
Marking	HAJQ	HAJR

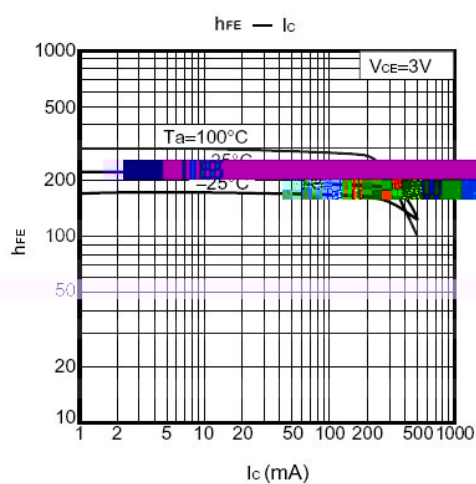
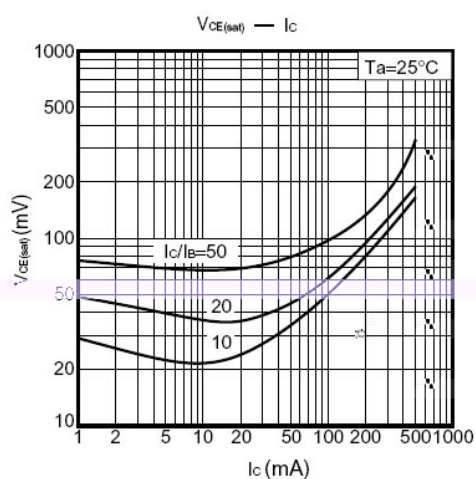
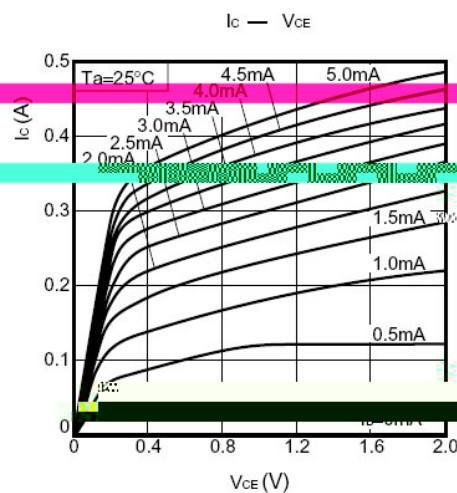
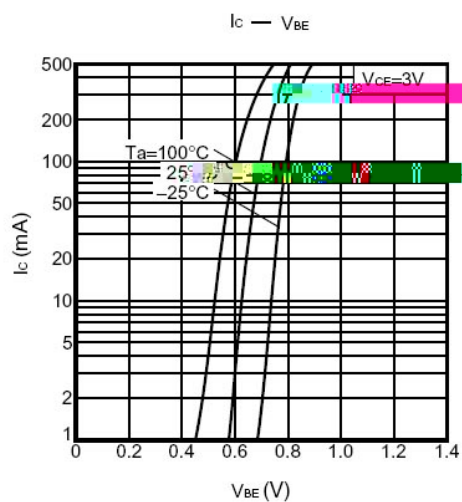
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	500	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}	$I_C=50\text{ A}$	80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=2\text{mA}$	80			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\text{ A}$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50\text{ V}$ $I_E=0$			0.5	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=4.0\text{V}$ $I_C=0$			0.5	A
DC Current Gain	h_{FE}	$V_{CE}=3.0\text{V}$ $I_C=100\text{mA}$	120		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$ $I_B=50\text{mA}$		0.2	0.5	V
Transition Frequency	f_T	$I_C=50\text{mA}$ $f=100\text{MHz}$ $V_{CE}=10\text{V}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		7.5		pF

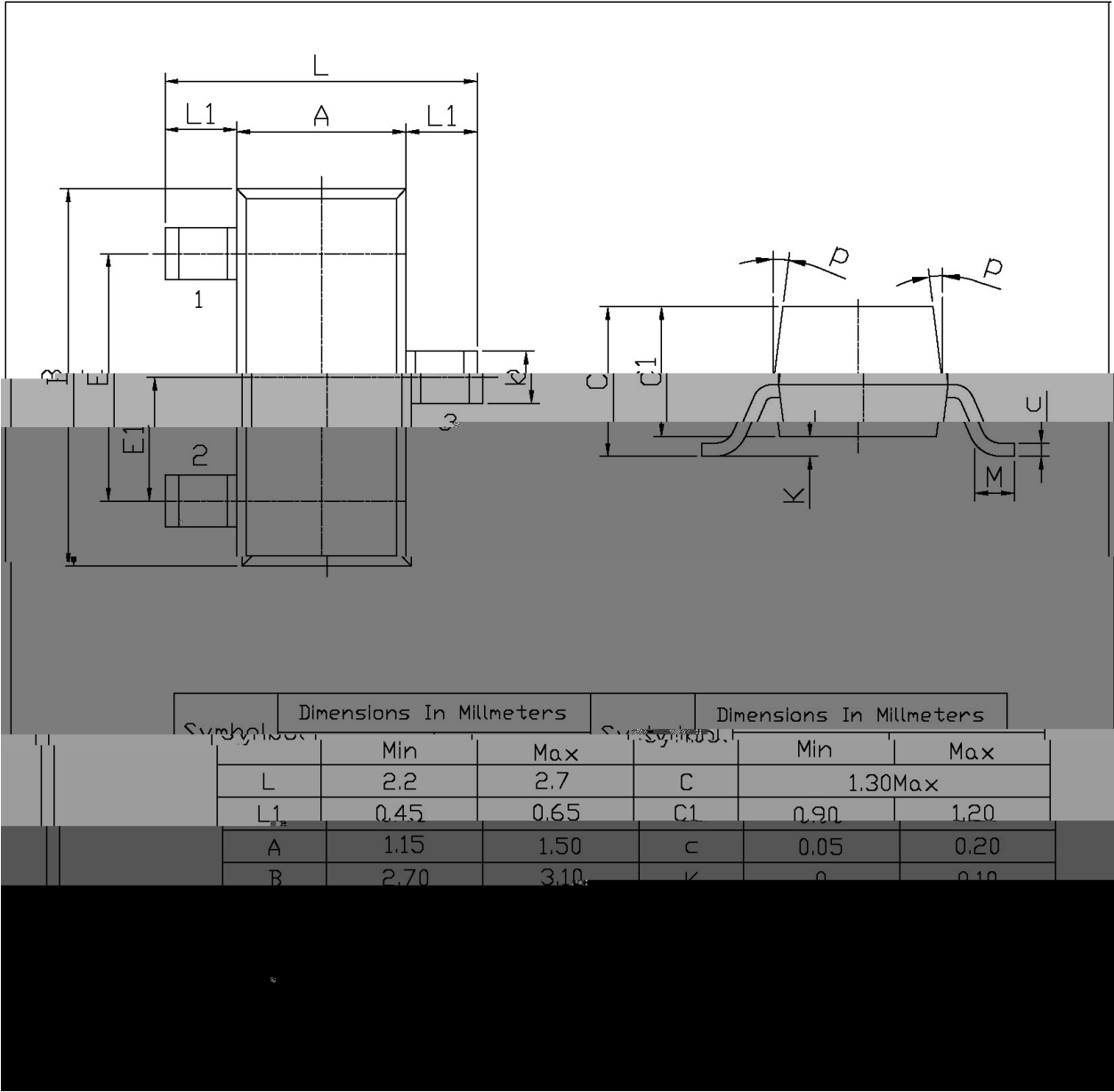
/ Electrical Characteristic Curve



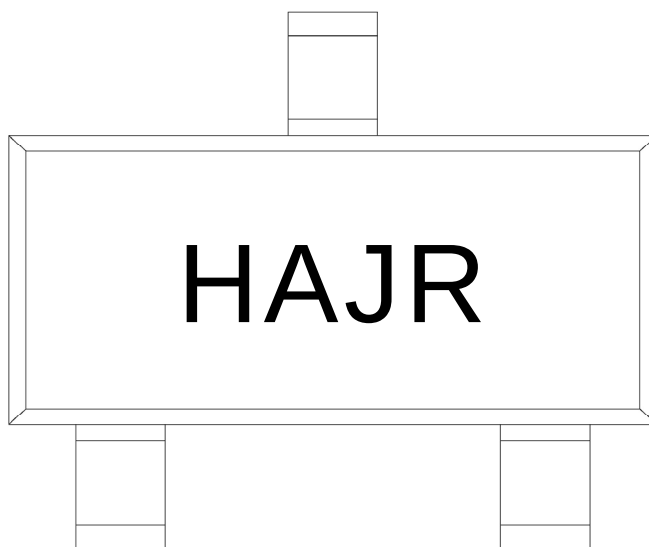
/ Package Dimensions

SOT-23

单位：mm



/ Marking Instructions



H

AJ

R h_{FE}

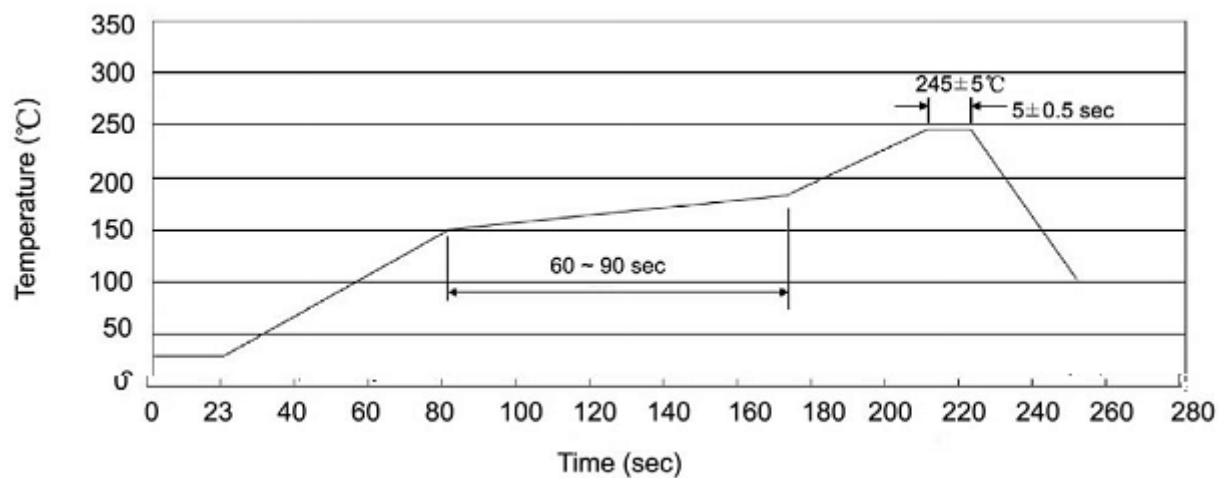
Note:

H: Company Code.

AJ: Product Type Code.

R: h_{FE} Classifications Symbol Code.

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Note:

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|---|-------|-----|----|-----------|---|
| 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices