2SB1424

Rev.E Mar.-2016

DATA SHEET

˜Yت / Descriptions

VRW0;< ṂṂȽ SQS ᴁṀɥ s ǁ ᒉ Silicon PNP transistor in a SOT-89 Plastic Package.

•È / Features

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Low $V_{CE(sat)}$,excellent DC current gain characteristics.

ν ي / Applications

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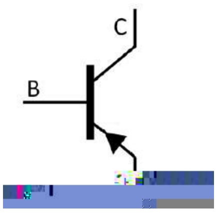
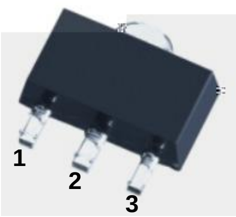
General purpose amplifier.

ȠƑ ᾳ ᵶ ع / Equivalent Circuit



ã ⅄ ʊ̃ / Pinning



PIN1 χ Base PIN 2 χ Collector PIN 3 χ Emitter

ɫ ʜ ב / Marking

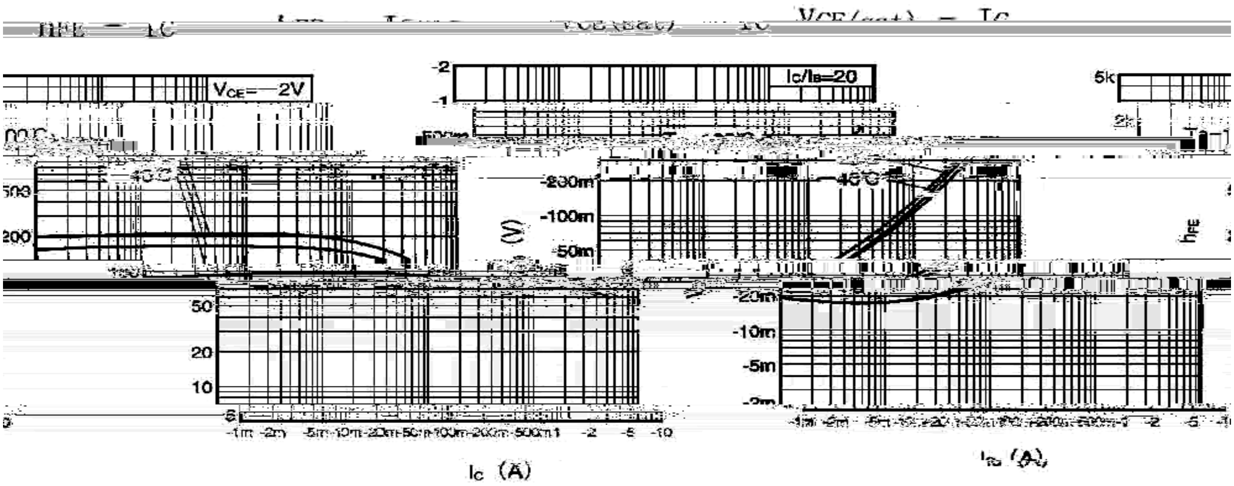
h_{FE} Classifications Symbol	Q	R
h_{FE} Range	120˙ 270	180˙ 390
Marking	HAEQ⁑	HAER⁑

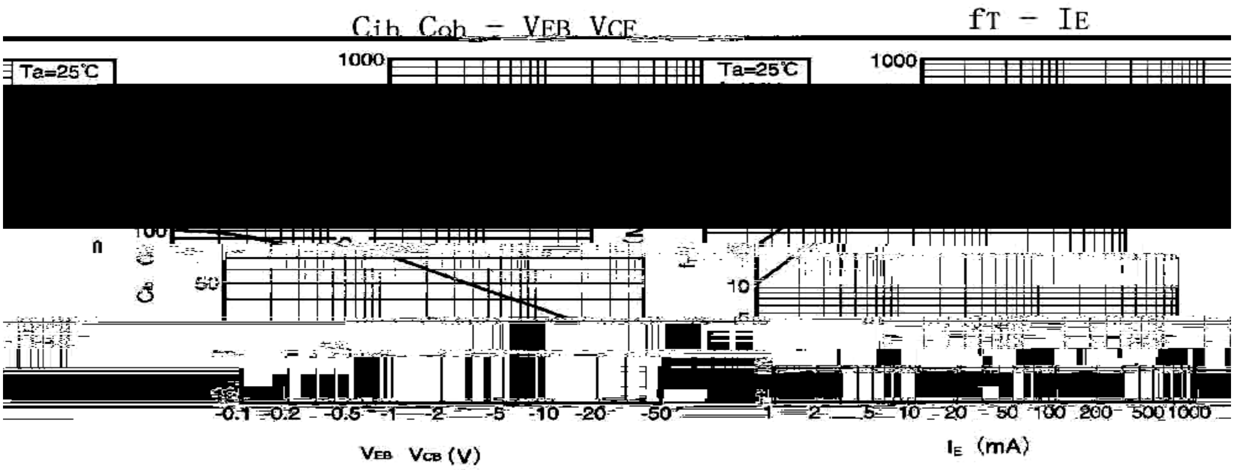
v ˝Ω Parameter	ɏ ᴺ Symbol	˝Ω Ӫ Rating	ᴅ ɏ Unit
Collector to Base Voltage	V_{CBO}	-20	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current-Continuous	I_C	-3.0	A
Collector Current -Continuous(Pulse)	I_{CP}	-5.0	A
Collector Power Dissipation	P_C	0.6	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55˙ 150	

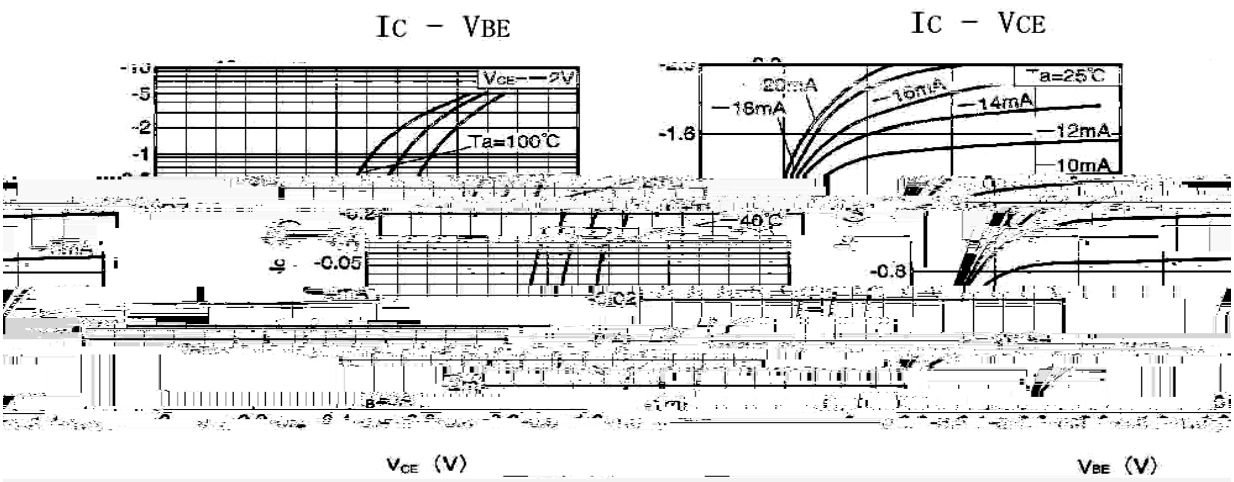
v ˝Ω Parameter	ɏ ᴺ Symbol	╝ ᵎᵎ ʈ Test Conditions	ῳ ṇ Ӫ Min	Ɛ ʒ Ӫ Typ	ῳ ᶻ Ӫ Max	ᴅ ɏ Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=-50μA I_E=0	-20			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-1.0mA I_B=0	-20			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=-50μA I_C=0	-6.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-20V I_E=0			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-0.1	μA
DC Current Gain	k_{IH}	V_{CE}=-2.0V I_C=-0.1A	120		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-2.0A I_B=-0.1A			-0.5	V
Transition Frequency	i_W	V_{CE}=-2.0V I_C=-0.5A f=100MHz		240		MHz

Collector

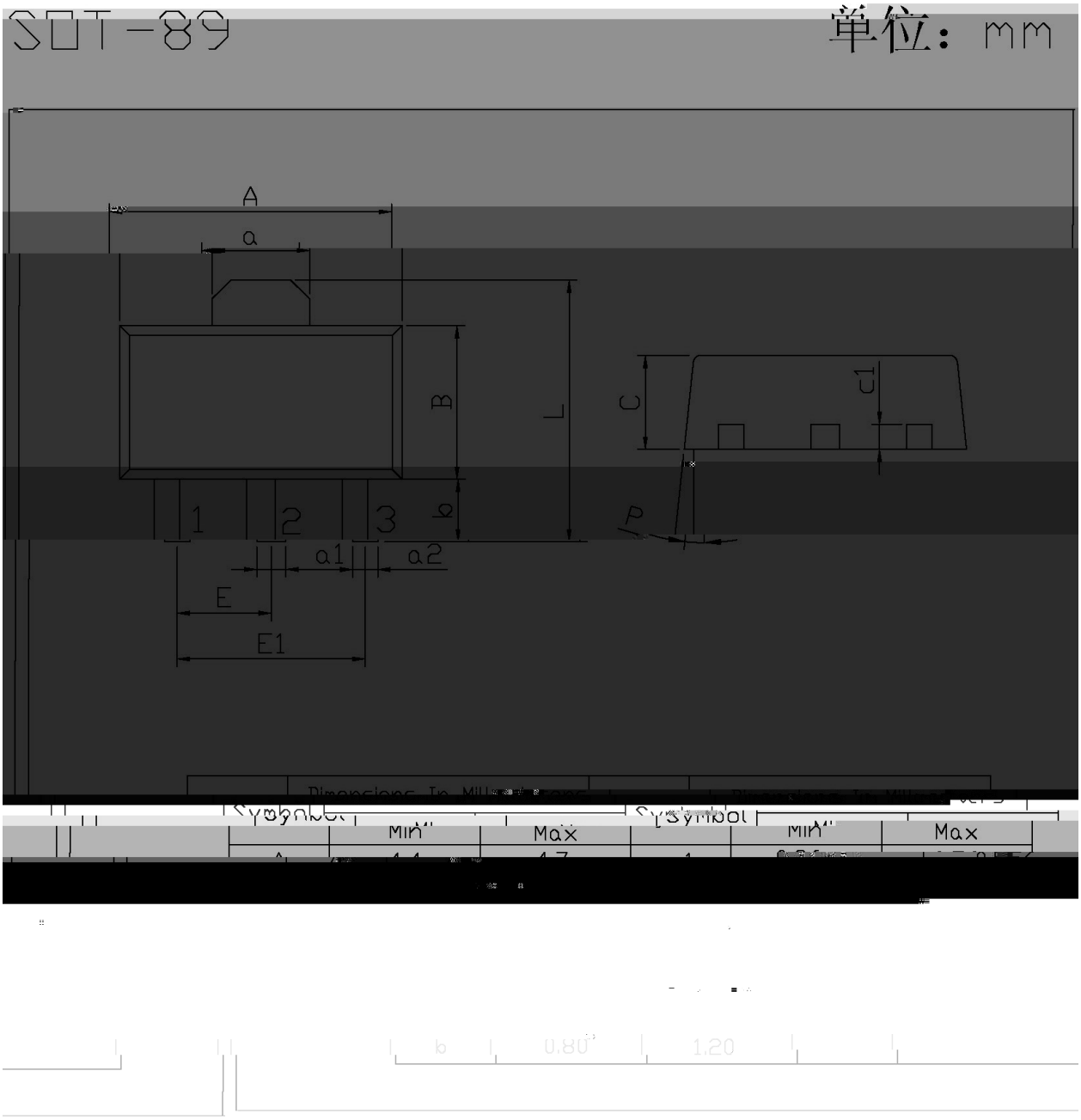
/ Electrical Characteristic Curve







ᵘ ĖÒĻ ƒ / Package Dimensions



DATA SHEET

ł˛ ꞁ῭Ὡ / Marking Instructions

ب ˝ χ

H χ ꞁ꜐ ꝭ ᴻ Ꮒ

AE χ ꞁ꜐ ʒ ᴺ Ꮒ

Q: ꞁ꜐ h_{FE} ˓ ⁶ Ꮒ

-- χ ꞁ꜐ ꞁ ғ ή ᴺ Ꮒ ı ꞓ ꞁ ғ ή ᴺ Ψ Ꝓ

Note:

H: Company Code.

AE: Product Type.

Q: h_{FE} Classifications Symbol

**: Lot No. Code, code change with Lot No.

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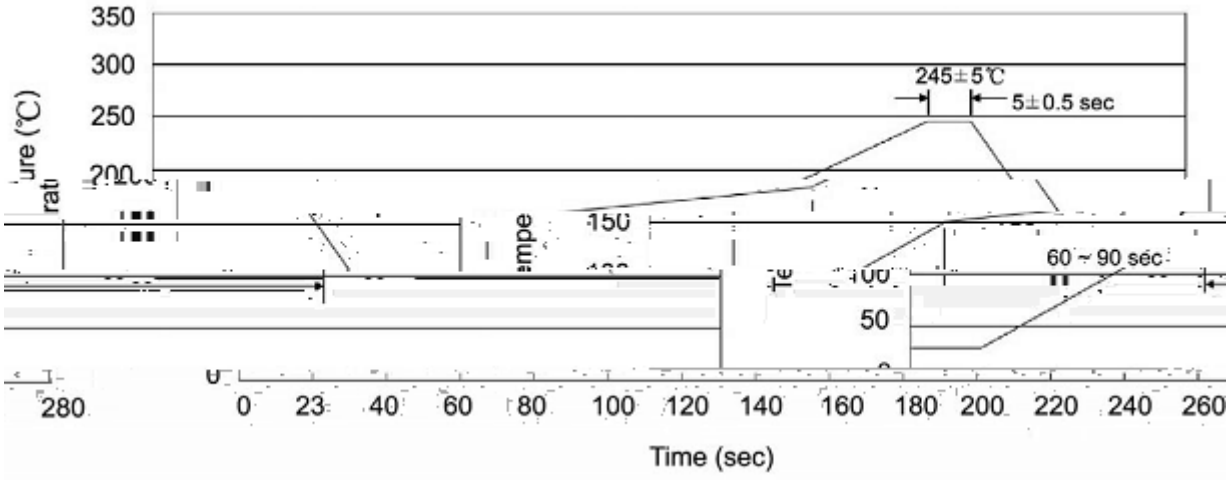

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1 Ĺ ♬ □ ẙ 25 Ḱ 150 ɬ ı ˋH ᴊ 60 Ḱ 90sec;

2 Š Ө □ ẙ 245 ° 5 ɬ ı ˋH ᴊ ˋY ⅄ ѭ 5 ° 0.5sec;

3 ì ˙ ⅄ ˛ ɔ ѡ ẙ ѭ 2 Ḱ 10 ɬ /sec.

Note:

1.Preheating:25~150 ɬ , Time:60~90sec.

2.Peak Temp.:245 ° 5 ɬ , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ɬ /sec.

⅄ ŭ ɋ ˉ ˋY Ţ / Resistance to Soldering Heat Test Conditions

□ ẙ χ 260 ° 5 ɬ ˋH ᴊ χ 10 ° 1 sec. Temp.:260±5 Time:10±1 sec

ɒ Ŀ ≮ — / Packaging SPEC.

ɔ ` ɣ Ŀ / REEL

Package Type	Units					Dimension		(unit mm^3)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	8	56,000	7 ρ ×12	180×120×180	385×257×392

ä ⅴ ŗ Ω / Notices