

/ Descriptions

VRW0; < QSQ Silicon NPN transistor in a SOT-89 Plastic Package.

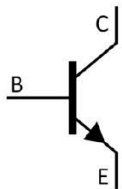
/ Features

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Low $V_{CE(sat)}$, high performance.

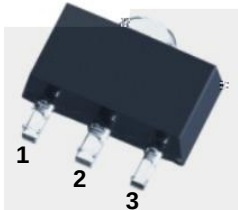
/ Applications

Audio frequency output amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

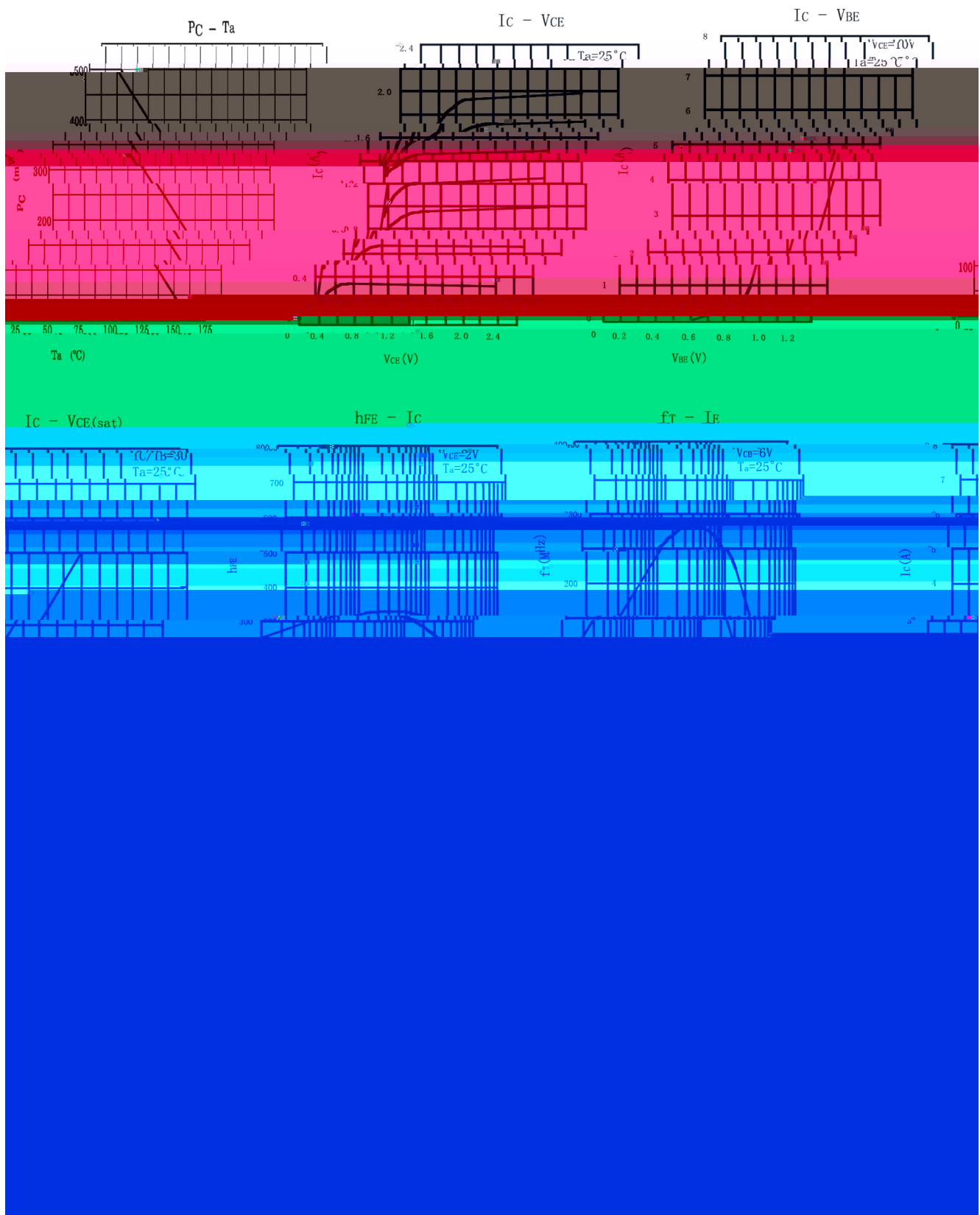
/ Marking

h_{FE} Classifications Symbol	P	Q	R	S
h_{FE} Range	180 270	230 380	340 600	560 1000
Marking	H65P* *	H65Q	H65R	H65S

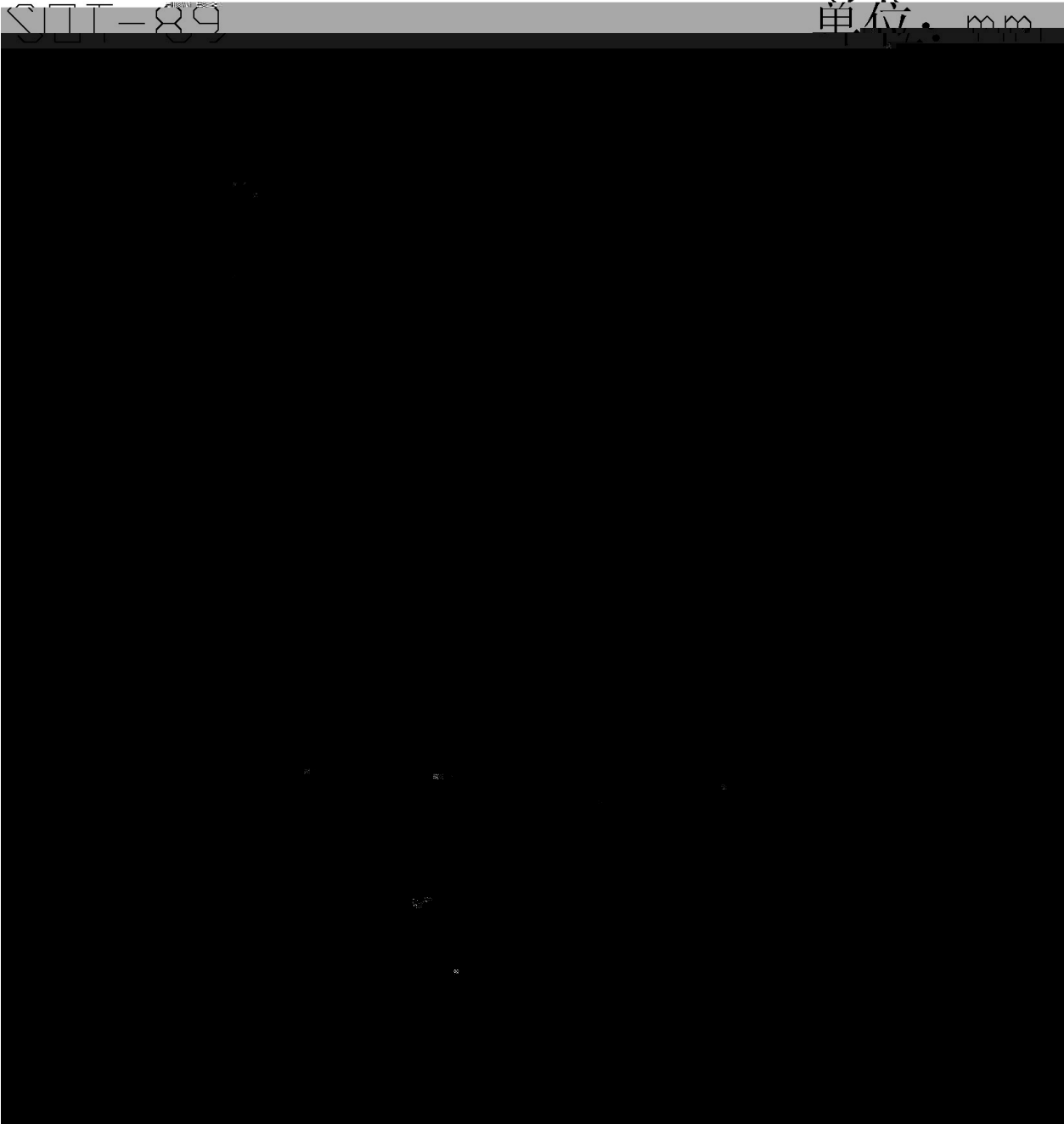
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current-Continuous	I_C	5.0	A
Collector Current -Continuous(Pulse)	I_{CP}	8.0	A
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10 A$ $I_C=0$	7.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=10V$ $I_E=0$			0.1	A

/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



H

65

P h_{FE}

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Note:

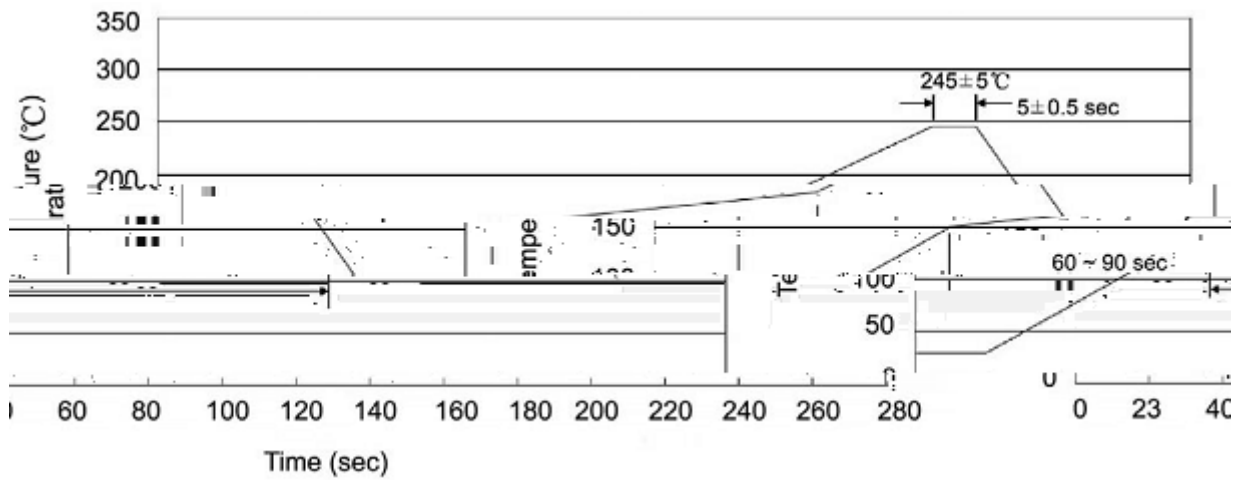
H: Company Code.

65: Product Type.

P h_{FE} Classifications Symbol

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

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Note:

- 1

25 150%

60 90sec;
- 2

245[±]5%

5[±]0.5sec;
- 3

2 10%/sec.
- 1.Preheating:25~150%, Time:60~90sec.

2.Peak Temp.:245[±]5%, Duration:5[±]0.5sec.

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)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-89	1,000	7	7,000	8	56,000	7 ×12	180×120×180	385×257×392