

/ Descriptions

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

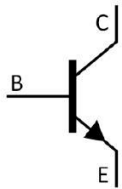
/ Features

Low $V_{CE(sat)}$, high current, HF Product.

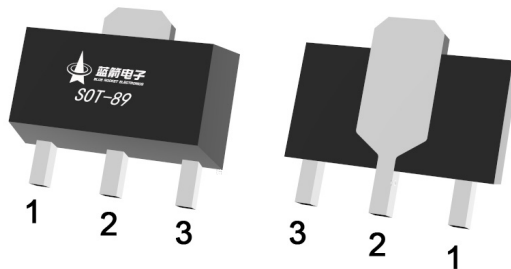
/ Applications

General purpose switching and muting, LCD back-lighting, supply line switching circuits.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ Marking

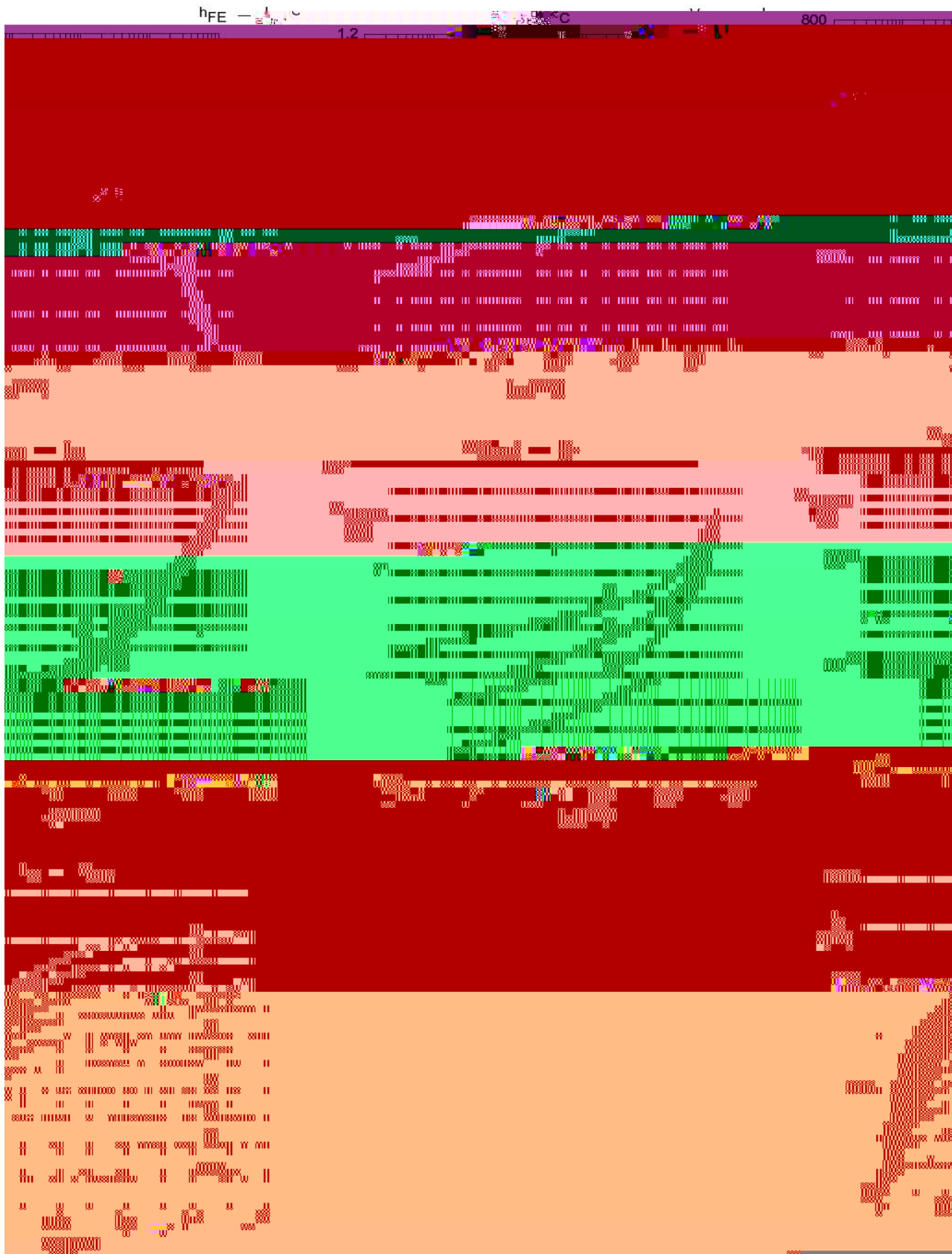
Marking	HS43 * *
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Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	3	A
Collector Base - Continuous	I_B	0.5	A
Peak Collector Current	I_{CM}	5	A
Total Power Dissipation	P_{tot}^4	550	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-65 150	

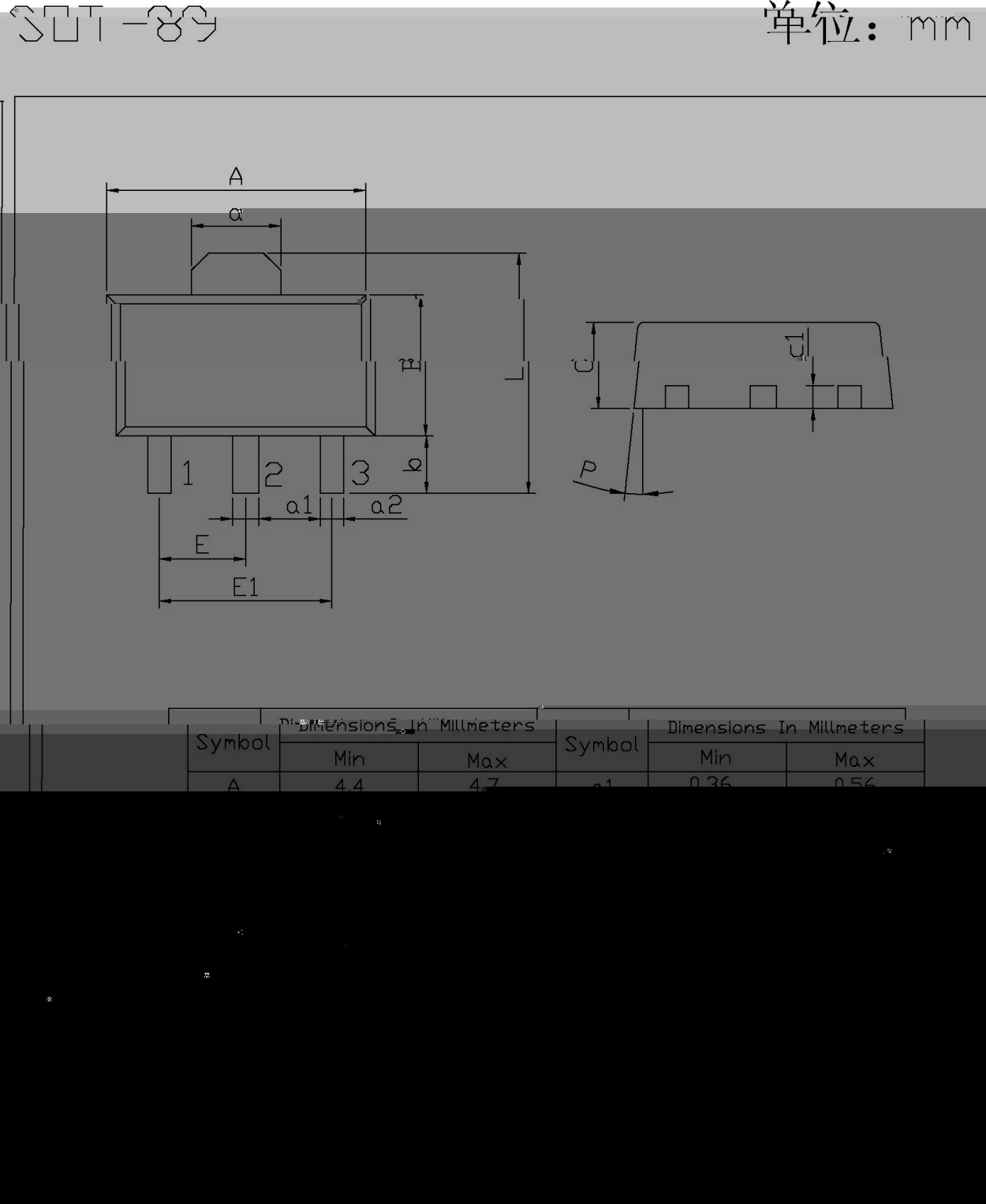
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Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			100	nA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$ $T_j=150$			50	μA
Collector Cut-Off Current	I_{CES}	$V_{CE}=50V$ $V_{BE}=0$			100	nA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=0.1A$	300			
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=0.5A$	300			
	$h_{FE(3)*}$	$V_{CE}=2.0V$ $I_C=1.0A$	300		700	

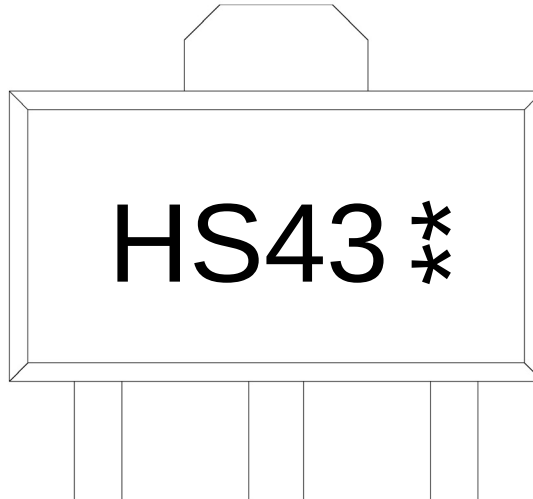
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



H

S43

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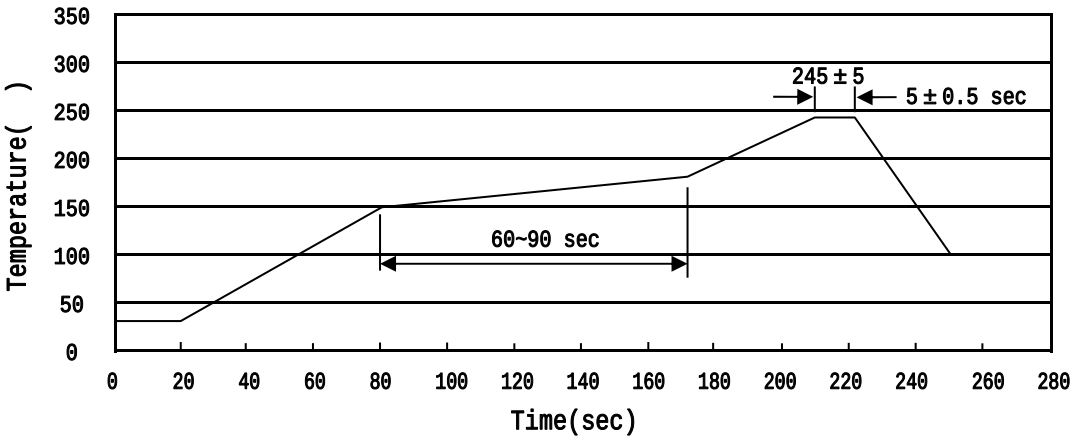
Note:

H: Company Code

S43: Product Type Code

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|------|----------|-----------|---|
| 1 | 150 | 180% | 60 | 90sec; | 1.Preheating:150~180%, 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)		
	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	6	42,000	7 ×12	180×120×180	390×385×205

/ Notices