

### 5 é / Descriptions

9 5: .> // x 6 4 6 !- } â 'ož Silicon PNP transistor in a SOT-89 Plastic Package.

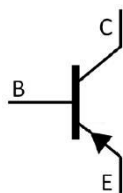
### α<sup>a</sup> / Features

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High voltage.

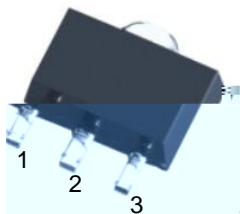
### Đ ÷ / Applications

ä 9 O ò èož  
High voltage control circuit.

### Ã W ] Ô . / Equivalent Circuit



### • Ũ - æ / Pinning



PIN1 y Base      PIN 2 y Collector      PIN 3 y Emitter

### , M V / Marking

Marking	H4D *
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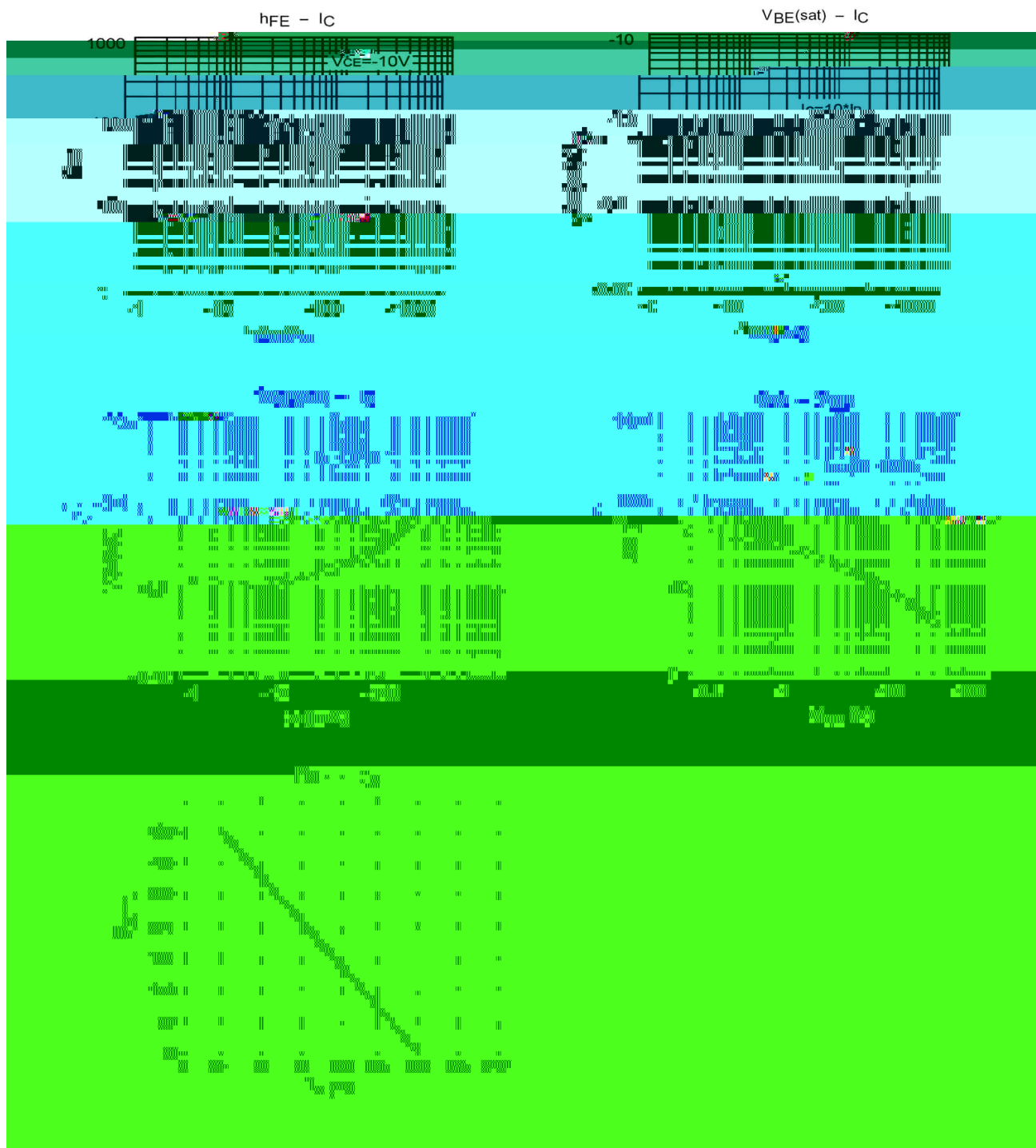
Table 1 / Absolute Maximum Ratings(Ta=25 °C ; )

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V <sub>CBO</sub>	-400	V
Collector to Emitter Voltage	V <sub>CEO</sub>	-400	V
Emitter to Base Voltage	V <sub>EBO</sub>	-5.0	V
Collector Current - Continuous	I <sub>C</sub>	-300	mA
Collector Power Dissipation	P <sub>C</sub>	500	mW
Junction Temperature	T <sub>j</sub>	150	
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	

Table 2 / Electrical Characteristics(Ta=25 °C ; )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V <sub>CBO</sub>	I <sub>C</sub> =-100 mA I <sub>E</sub> =0	-400			V
Collector to Emitter Breakdown Voltage	V <sub>CEO</sub>	I <sub>C</sub> =-1.0mA I <sub>B</sub> =0	-400			V
Emitter to Base Breakdown Voltage	V <sub>EBO</sub>	I <sub>E</sub> =-100 mA I <sub>C</sub> =0	-5.0			V
Collector Cut-Off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-300V I <sub>E</sub> =0			-0.1	μA
Emitter Cut-Off Current	I <sub>CES</sub>	V <sub>CE</sub> =-400V V <sub>BE</sub> =0			-1	μA
Emitter Base Cut-Off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-4.0V I <sub>C</sub> =0			-0.1	μA
DC Current Gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =-10V I <sub>C</sub> =-10mA	80		300	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =-10V I <sub>C</sub> =-1.0mA	70			
	h <sub>FE(3)</sub>	V <sub>CE</sub> =-10V I <sub>C</sub> =-100mA	40			
Collector to Emitter Saturation Voltage	V <sub>CE(sat) (1)</sub>	I <sub>C</sub> =-10mA I <sub>B</sub> =-1.0mA			-0.2	V
	V <sub>CE(sat) (2)</sub>	I <sub>C</sub> =-50mA I <sub>B</sub> =-5.0mA			-0.3	V
Emitter to Base Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-10mA I <sub>B</sub> =-1.0mA			-0.75	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =-5.0V I <sub>C</sub> =-10mA f=30MHz	50			MHz

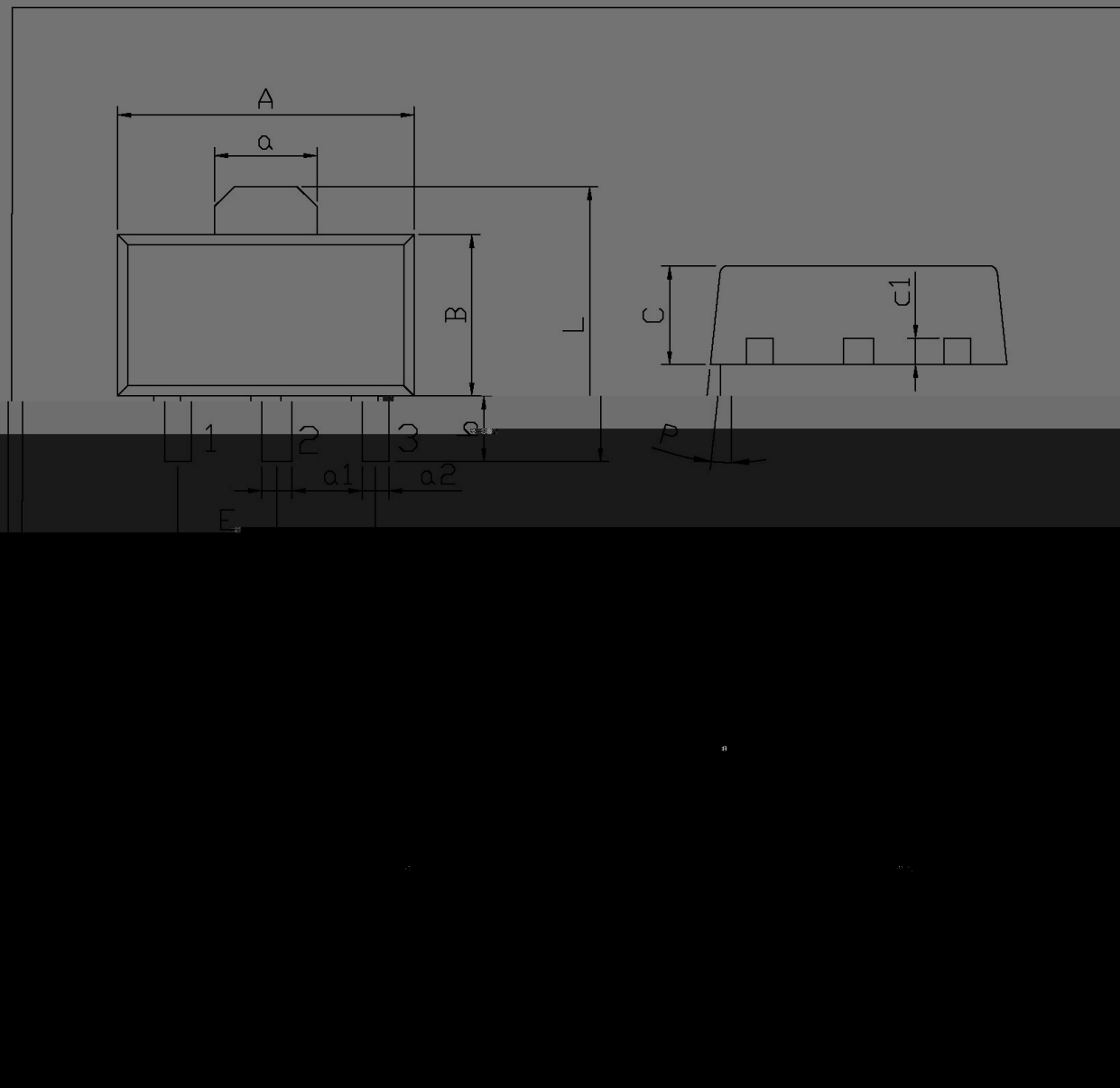
Electrical Characteristic Curve



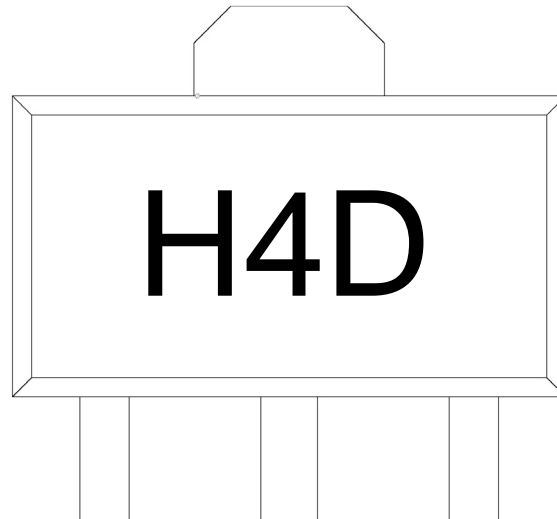
Ø □ = ) ∅ / Package Dimensions

SOT-89

单位: mm



, M y f / Marking Instructions



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4D y ° Z W A

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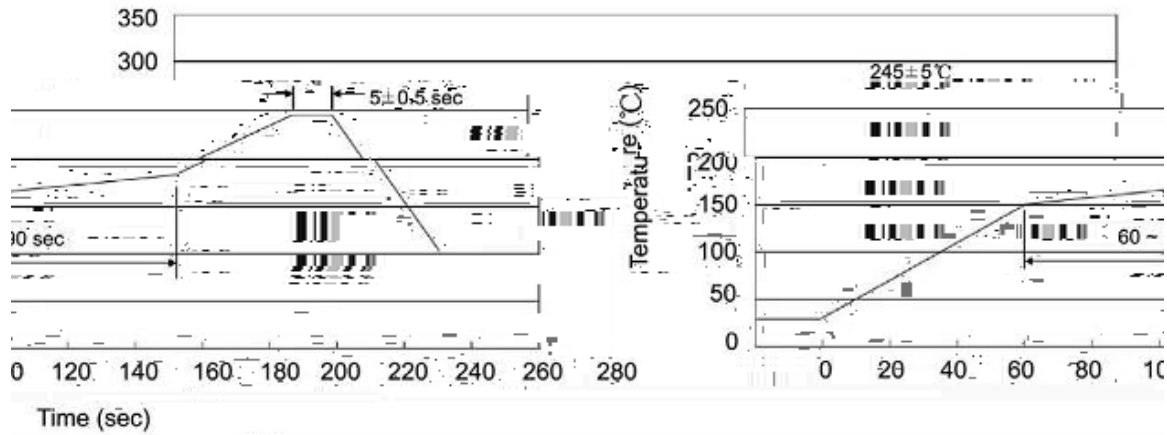
Note:

H: Company Code.

4D: Product Type.

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

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- 1. Preheating: 150~180 - , Time: 60~90sec;
- 2. Peak Temp.: 245 r5 - k ž • 4 Ò 5 r0.5sec;
- 3. Cooling Speed: 2~10 - /sec.

Note:

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