

**/ Descriptions**

SOT-89          PNP                          Silicon PNP transistor in a SOT-89 Plastic Package.

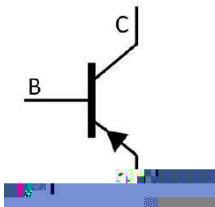
**/ Features**

h<sub>FE</sub>                          2SD999  
Low V<sub>CE(sat)</sub>, excellent h<sub>FE</sub> linearity, complements the 2SD999.

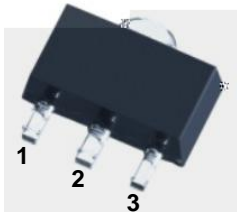
**/ Applications**

Audio frequency power amplifier applications.

**/ Equivalent Circuit**



**/ Pinning**



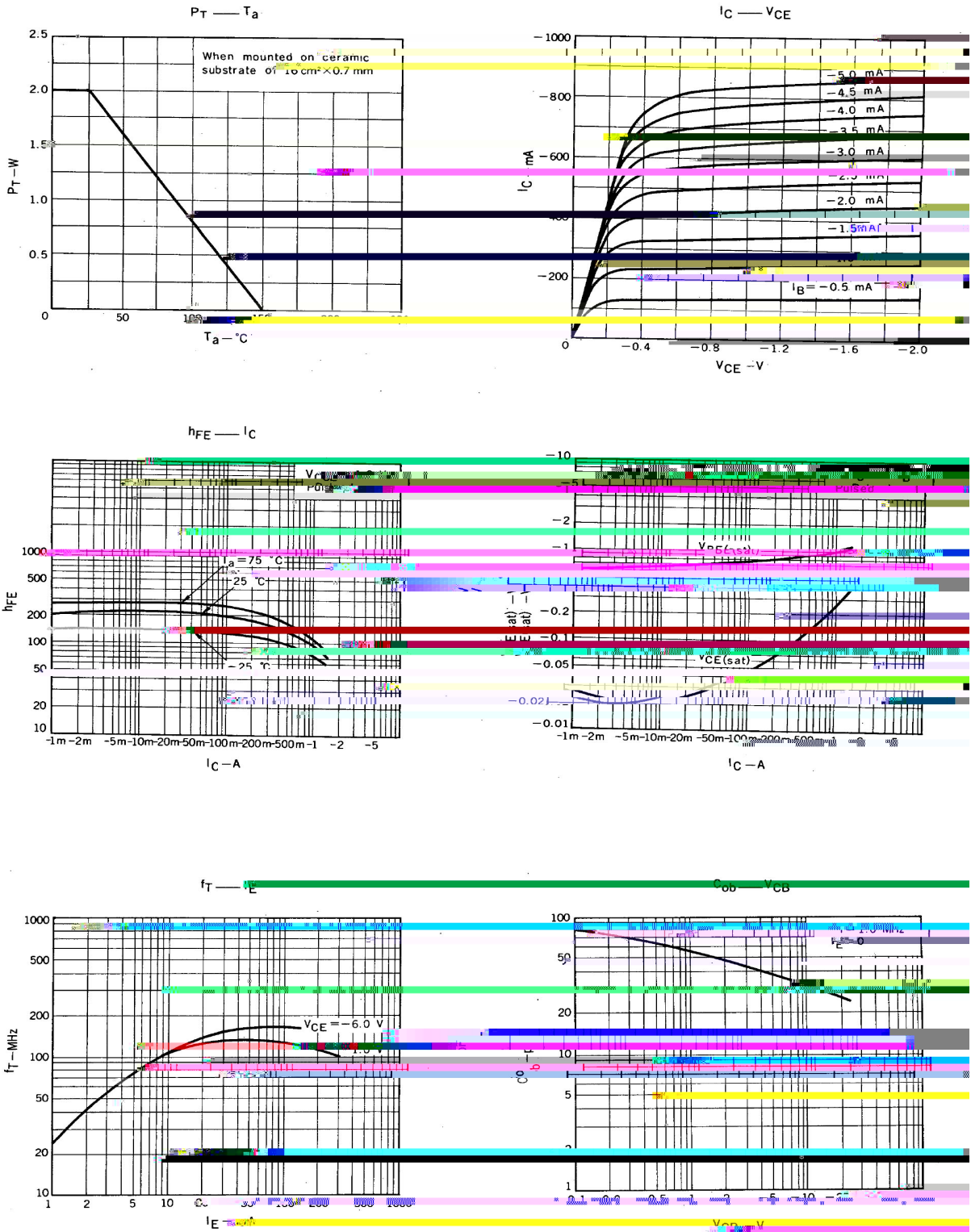
PIN1 Base          PIN 2 Collector          PIN 3 Emitter

**/ Marking**

h <sub>FE</sub> Classifications Symbol	M	L	K
h <sub>FE</sub> Range	90 180	135 270	200 400
Marking	HDM	HDL	HDK

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-30	V

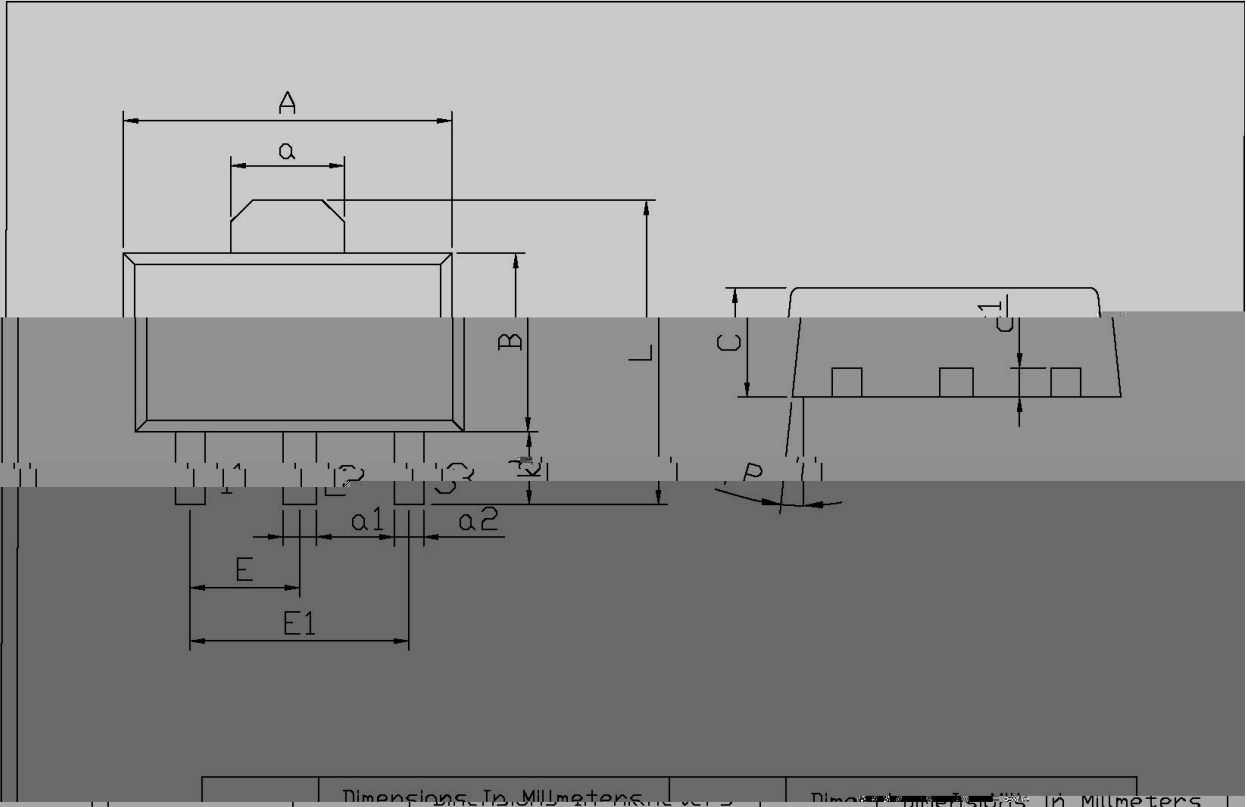
/ Electrical Characteristic Curve



/ Package Dimensions

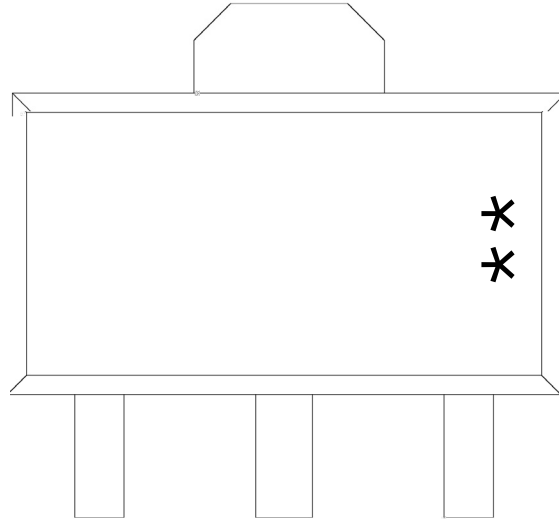


单位: mm



Dimensions in Millimeters		Dimensions in Millimeters	
Symbol	Value	Symbol	Value
A	10.0	L	10.0
a	4.0	C	1.5
B	4.0	P	1.0
E	4.0	E1	4.0
a1	1.0	a2	1.0

/ Marking Instructions



H

D

M  $h_{FE}$

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Note:

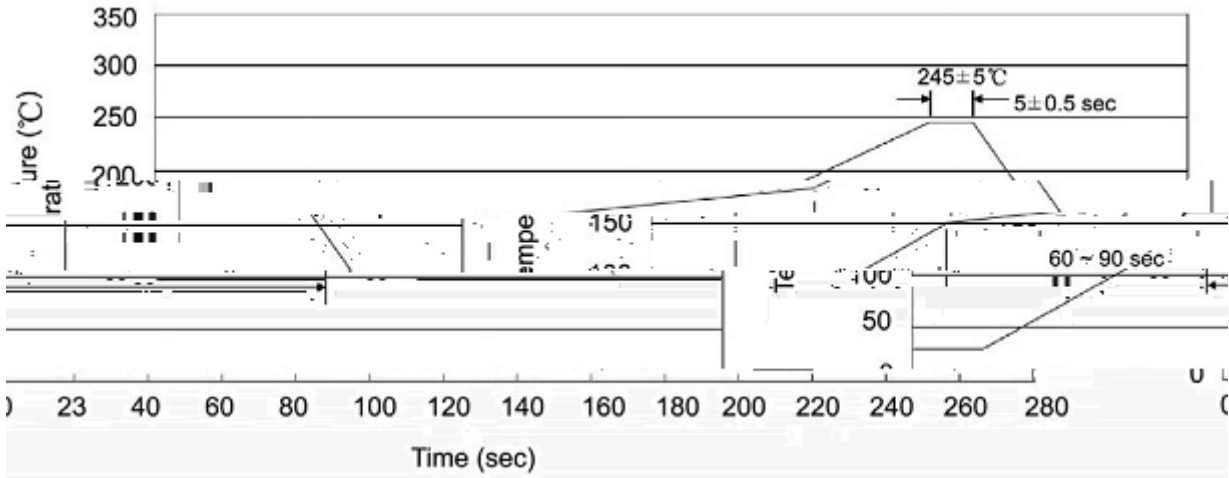
H: Company Code.

D: Product Type.

M  $h_{FE}$  Classifications Symbol

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

( ) / Resistance to Soldering Heat Test Conditions



Note:

- |   |       |     |    |           |   |
|---|-------|-----|----|-----------|---|
| 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	Units	Dimension	(unit mm <sup>3</sup> )
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