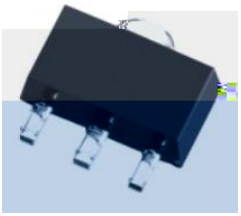
Silicon NPN transistor in a SOT-89 Plastic Package.

Low saturation voltage, excellent DC current gain characteristics, complements the 2SA1797.
HF product.

Low frequency power amplifier applications.

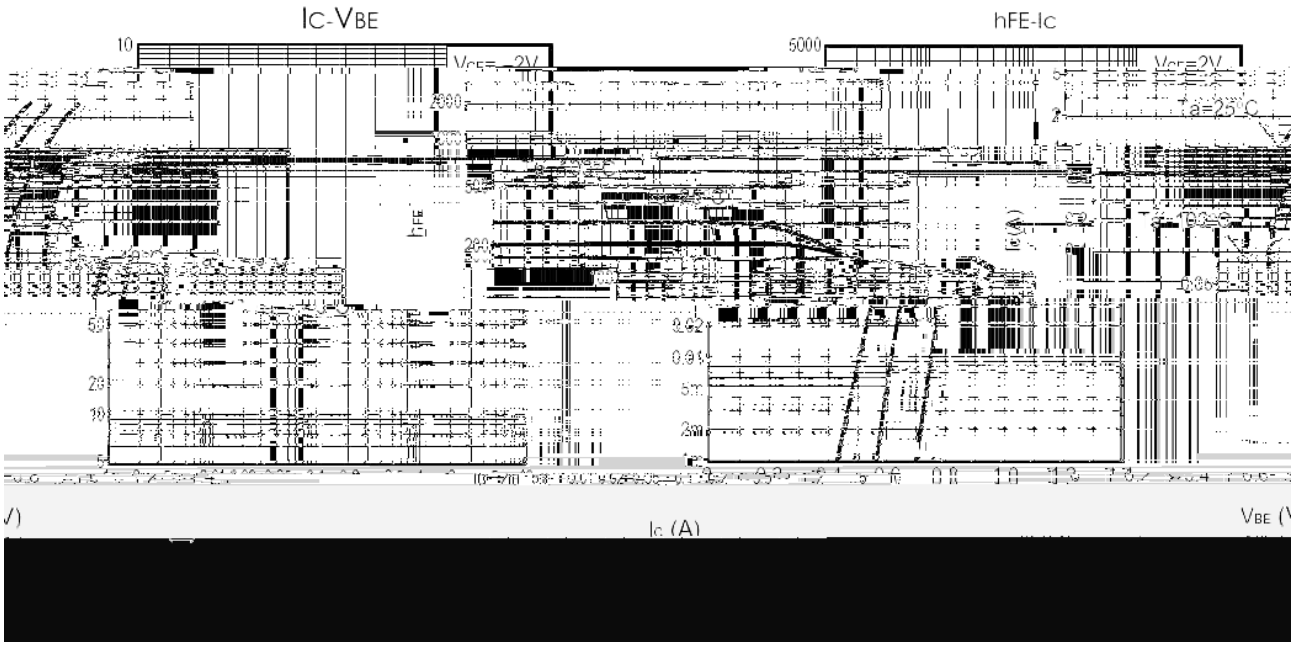


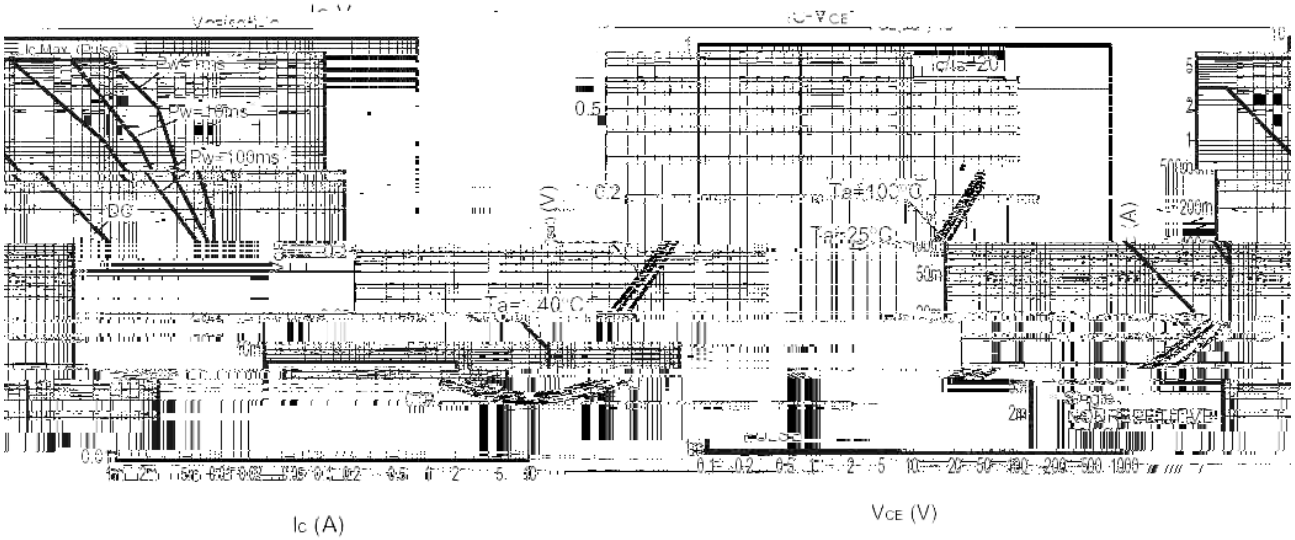
PIN1 Base PIN 2 Collector PIN 3 Emitter

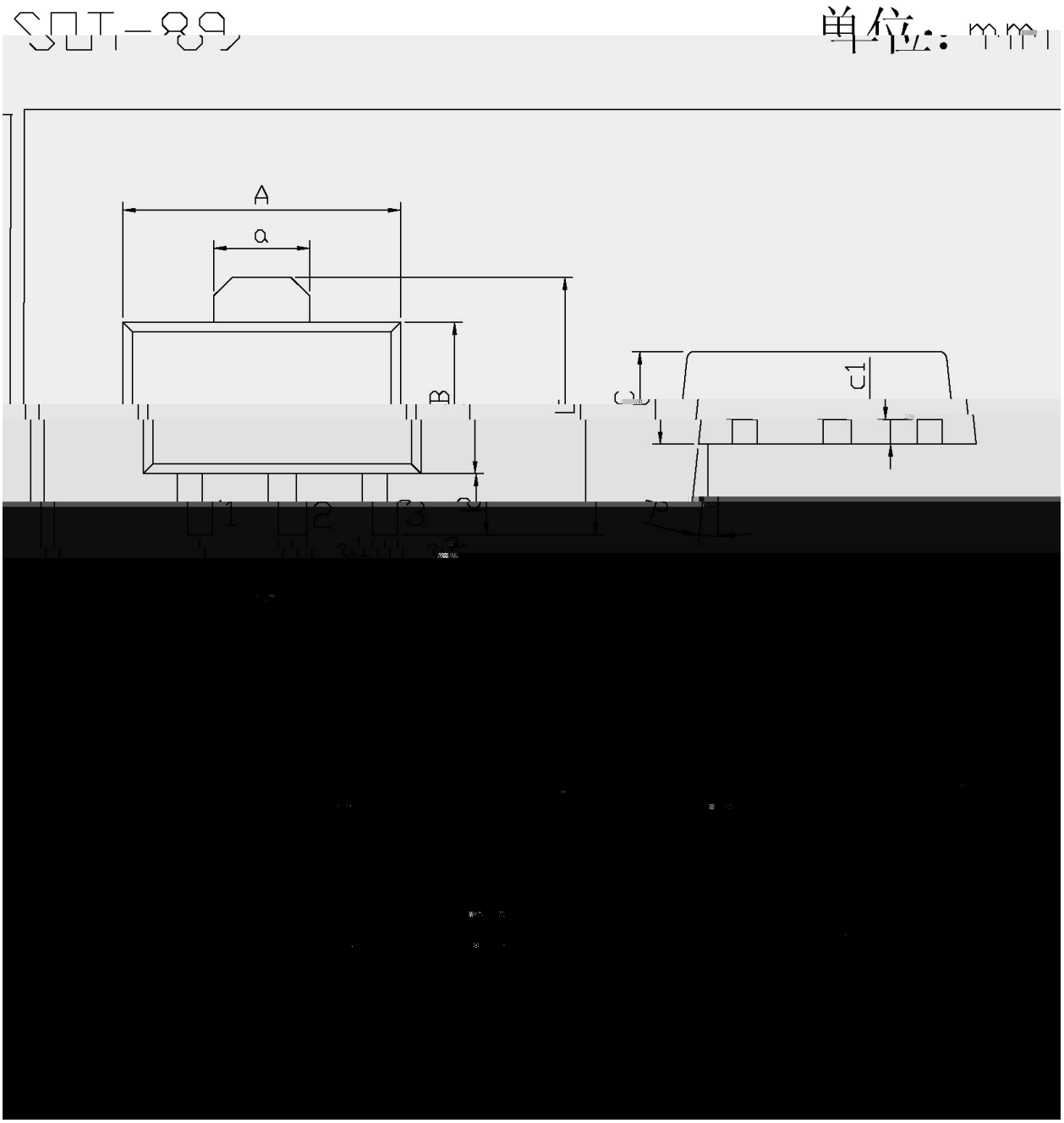
| $h_{FE}$ Classifications Symbol | P | Q |
|---|---|---|
| $h_{FE}$ Range | 82 180 | 120 270 |
| Marking | HDKP | HDKQ |

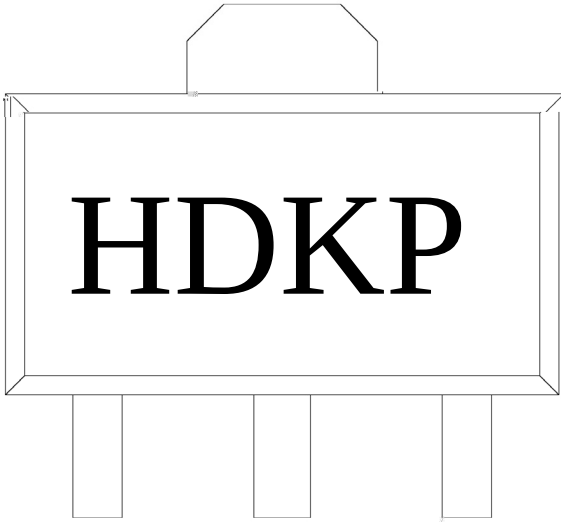
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | 60 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | 50 | V |
| Emitter to Base Voltage | $V_{EBO}$ | 6.0 | V |
| Collector Current - Continuous | $I_C$ | 3.0 | A |
| Collector Current – Continuous(Pulse) | $I_{CP}$ | 6.0 | A |
| Collector Power Dissipation | $P_C$ | 0.5 | W |
| Collector Power Dissipation* | $*P_C$ | 2.0 | W |
| Junction Temperature | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector to Base Breakdown Voltage | $V_{CBO}$ | $I_C$=50μA | 60 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$=1.0mA | 50 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=50μA | 6.0 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=60V | | | 0.1 | μA |
| Emitter Base Cut-Off Current | $I_{EBO}$ | $V_{EB}$=5.0V | | | 0.1 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=2.0V $I_C$=500mA | 82 | | 270 | |
| | $h_{FE(2)}$ | $V_{CE}$=2.0V $I_C$=1.5A | 45 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=1.0A $I_B$=50mA | | 0.13 | 0.35 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=2.0V $I_C$=0.5A f=100MHz | | 210 | | MHz |
| Collector Output Capacitance | $C_{ob}$ | $V_{CB}$=10V f=1.0MHz | | 25 | | pF |


IC-VBE
hFE-IC
Ic (A)


Ic (A)
VCE (V)


SOT-89
单位：mm
A
a
B
L
C
C1
b1
b2
b3




H

DK

P

Note:

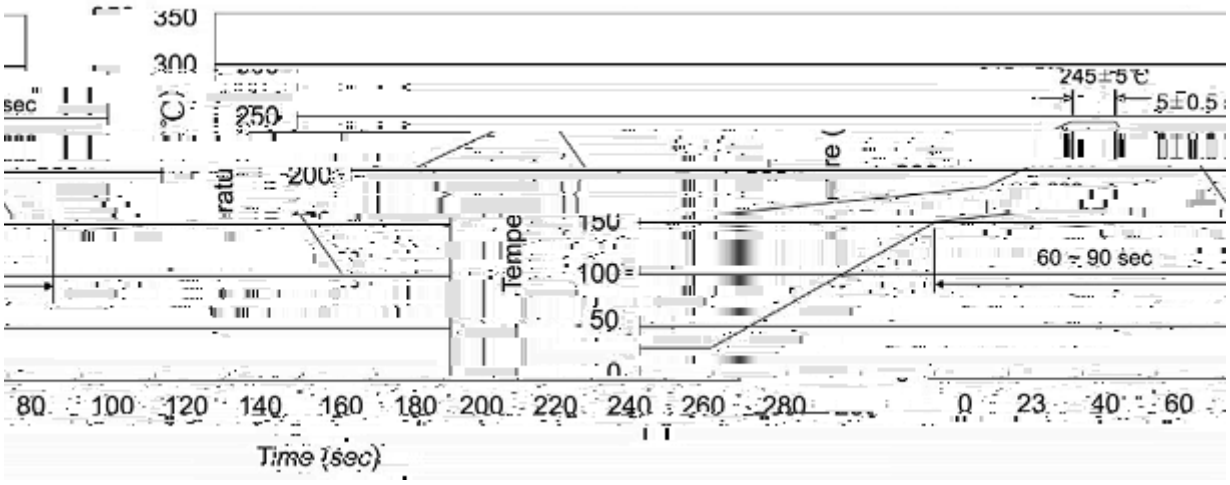
H: Company Code.

DK: Product Type.

P $h_{FE}$ Classifications Symbol

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

## Wh p shrdwxrh Prriioh irr IU Uhiorw Vroghriqj+Pe-Frhh,




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.

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ 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 ρ ×12 | 180×120×180 | 385×257×392 |