

Rev.A May.-2016

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

2SB647(A)T
 Complementary pair with 2SB647(A)T.

Low frequency power amplifier.



PIN1 Base PIN 2 Collector PIN 3 Emitter

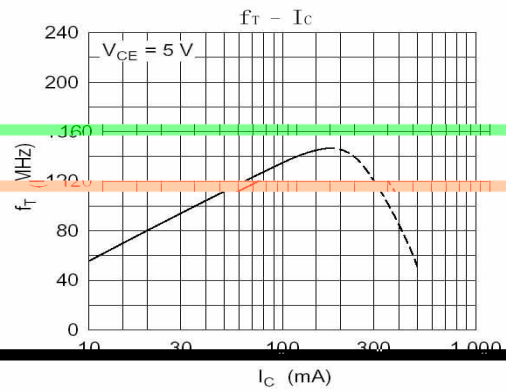
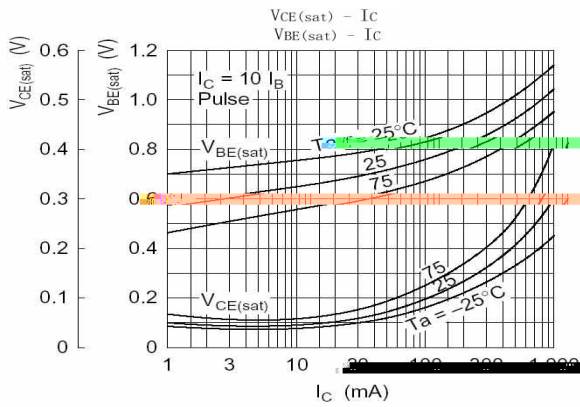
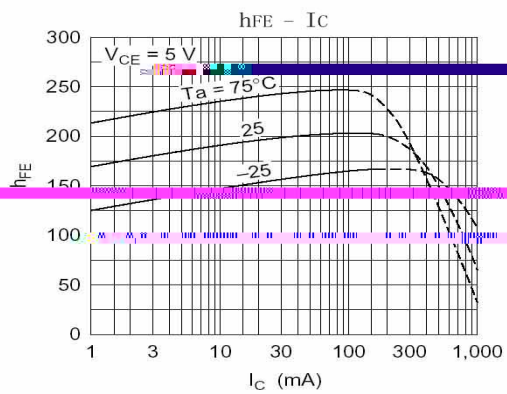
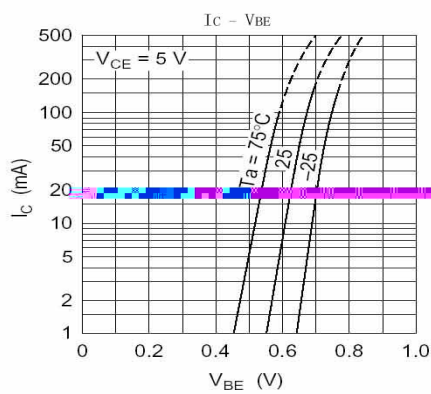
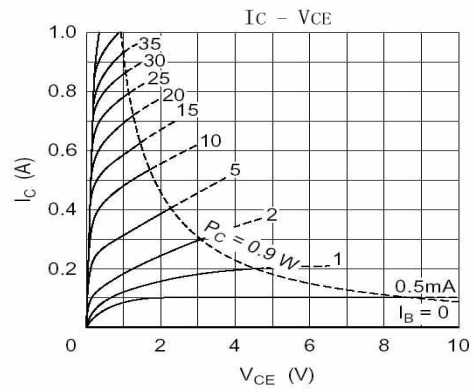
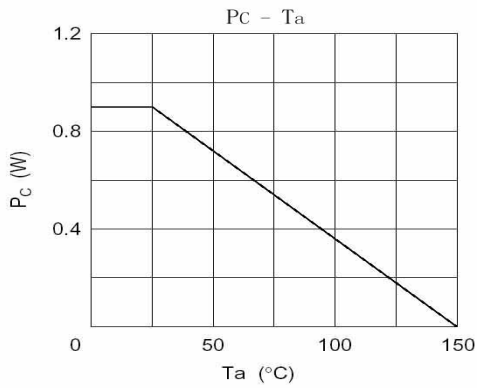
| h_{FE} Classifications Symbol | B | C | D |
|------------------------------------|-------------|-------------|-------------|
| h_{FE} Range | 60 120 | 100 200 | 160 320 |
| Marking | H67B * * | H67C * * | H67D * * |

| Parameter | Symbol | Rating | Unit |
|------------------------------|-----------|----------|------|
| Collector to Base Voltage | V_{CBO} | 120 | V |
| Collector to Emitter Voltage | V_{CEO} | 2SD667T | 80 |
| | | 2SD667AT | 100 |
| Emitter to Base Voltage | V_{EBO} | 5.0 | V |
| Collector Current (DC) | I_C | 1.0 | A |
| Collector Current (Pulse) | I_{CP} | 2.0 | A |
| Collector Power Dissipation | P_C | 500 | mW |
| Collector Power Dissipation* | * P_C | 1.0 | W |
| Junction Temperature | T_j | 150 | |
| Storage Temperature Range | T_{stg} | -55 150 | |

*:mounted on ceramic substrate(250mm²×0.8t).

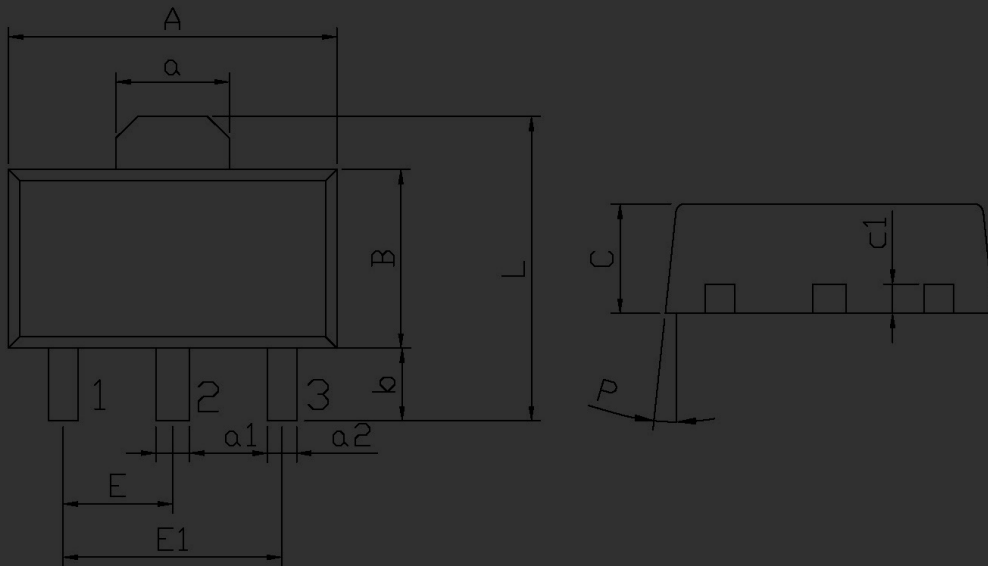
* 250mm²×0.8t

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---------------|--|-----|-----|-----|------|
| Collector to Base Breakdown Voltage | V_{CBO} | $I_C=10\text{ A}$ $I_E=0$ | 120 | | | V |
| Collector to Emitter Breakdown Voltage | V_{CEO} | $I_C=1.0\text{mA}$ $I_B=0$ | 80 | | | V |
| | | | 100 | | | |
| Emitter to Base Breakdown Voltage | V_{EBO} | $I_E=10\text{ A}$ $I_C=0$ | 5.0 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=100\text{V}$ $I_E=0$ | | | 10 | A |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=5.0\text{V}$ $I_C=150\text{mA}$ | 60 | | 320 | |
| | $h_{FE(2)}$ | $V_{CE}=5.0\text{V}$ $I_C=500\text{mA}$ | 30 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500\text{mA}$ $I_B=50\text{mA}$ | | | 1.0 | V |
| Base to Emitter Saturation Voltage | V_{BE} | $V_{CE}=5.0\text{V}$ $I_C=150\text{mA}$ | | | 1.5 | V |
| Transition Frequency | f_T | $V_{CE}=5.0\text{V}$ $I_C=150\text{mA}$ | | 140 | | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$ | | 12 | | pF |

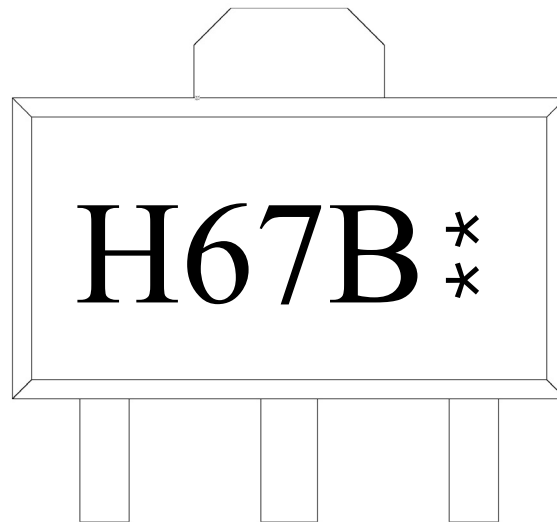


ST1-89

单位: mm



| Symbol | Dimensions In Millimeters | | Symbol | Dimensions In Millimeters | |
|--------|---------------------------|-------|--------|---------------------------|------|
| | Min | Max | | Min | Max |
| A | 4.4 | 4.7 | a1 | 0.36 | 0.56 |
| B | 2.35 | 2.65 | a2 | 0.30 | 0.50 |
| L | 3.878 | 4.478 | C | 1.40 | 1.70 |
| a | 1.45 | 1.65 | c1 | 0.35 | 0.50 |
| E | 1.40 | 1.60 | P | 6° | |
| E1 | 2.80 | 3.20 | | | |
| b | 0.80 | 1.20 | | | |



H:

67

B:

h_{FE}

**

Note:

H: Company Code.

67: Product Type.

B: h_{FE} Classifications Symbol

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

