



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

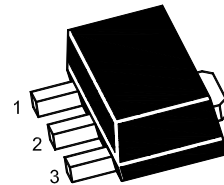
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

ST 2SD882U

NPN Silicon Power Transistor

The transistor is subdivided into four groups, R, Q, P and E, according to its DC current gain.



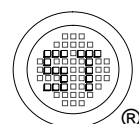
1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|---------------------|-------------|------------------|
| Collector to Base Voltage | V_{CBO} | 40 | V |
| Collector to Emitter Voltage | V_{CEO} | 30 | V |
| Emitter to Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 3 | A |
| Collector Current (pulse) | $I_C(\text{pulse})$ | 7 | A |
| Total power dissipation ($T_a = 25^\circ\text{C}$) | P_{tot} | 1 | W |
| Total power dissipation ($T_c = 25^\circ\text{C}$) | P_{tot} | 10 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_s | -55 to +150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit | |
|--|----------------------|----------|------|------|---------------|---|
| DC Current Gain at $V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$ | | | | | | |
| Current Gain Group | R | h_{FE} | 60 | - | 120 | - |
| | Q | h_{FE} | 100 | - | 200 | - |
| | P | h_{FE} | 160 | - | 320 | - |
| | E | h_{FE} | 200 | - | 400 | - |
| at $V_{CE} = 2\text{ V}$, $I_C = 20\text{ mA}$ | | | | | | |
| | | h_{FE} | 30 | - | - | - |
| Collector Cutoff Current at $V_{CB} = 30\text{ V}$ | I_{CBO} | - | - | 1 | μA | |
| Emitter Cutoff Current at $V_{EB} = 3\text{ V}$ | I_{EBO} | - | - | 1 | μA | |
| Collector Emitter Saturation Voltage at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$ | $V_{CE(\text{sat})}$ | - | - | 0.5 | V | |
| Base Emitter Saturation Voltage at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$ | $V_{BE(\text{sat})}$ | - | - | 2 | V | |
| Gain Bandwidth Product at $V_{CE} = 5\text{ V}$, $I_C = 0.1\text{ A}$ | f_T | - | 90 | - | MHz | |
| Output Capacitance $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{ob} | - | 45 | - | pF | |



Dated : 22/03/2006



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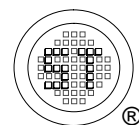
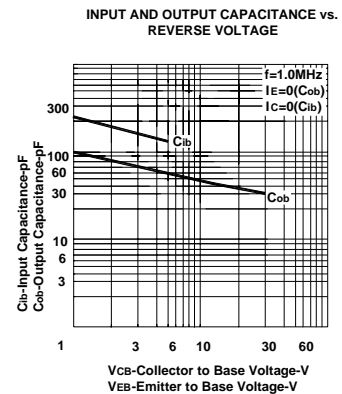
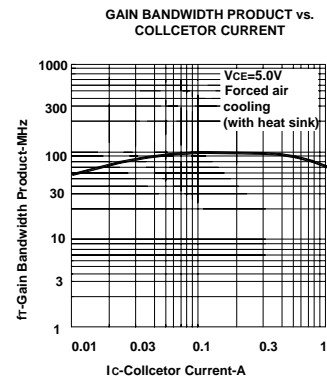
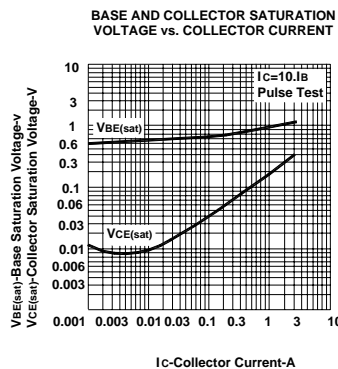
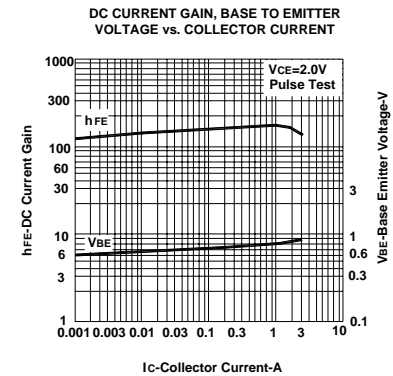
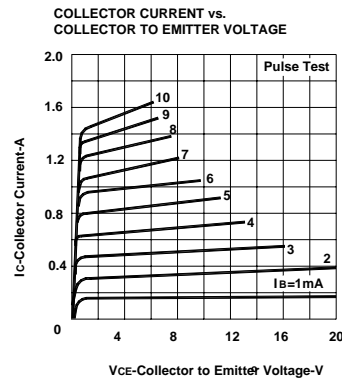
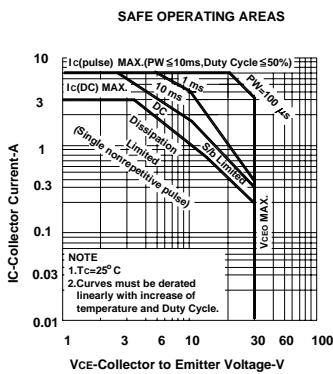
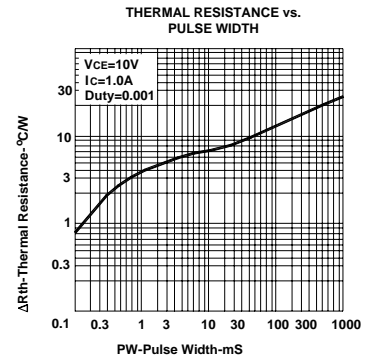
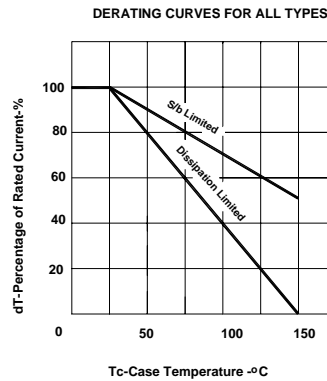
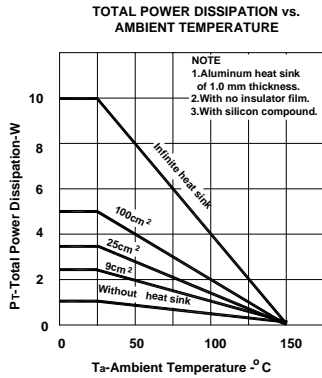
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TYPICAL CHARACTERISTICS (Ta=25°C)



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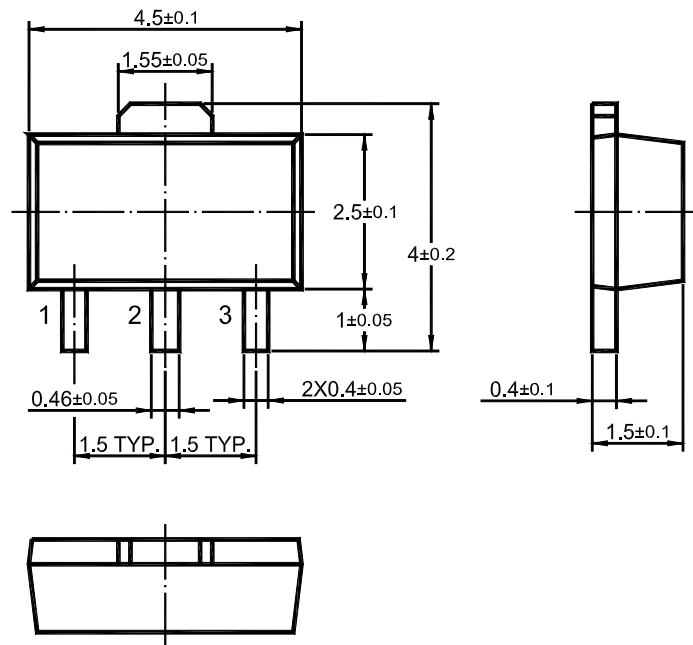
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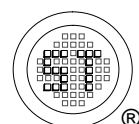
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SOT-89 PACKAGE OUTLINE



Dimensions in mm



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