



2SD882S

NPN SILICON TRANSISTOR

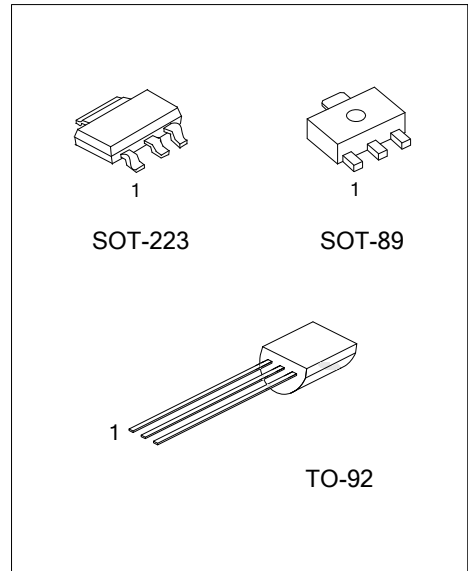
MEDIUM POWER LOW VOLTAGE TRANSISTOR

■ **FEATURES**

- * High current output up to 3A
- * Low saturation voltage
- * Complement to 2SB772S

■ **APPLICATIONS**

- * Audio power amplifier
- * DC-DC convertor
- * Voltage regulator



■ **ORDERING INFORMATION**

| Order Number | | Package | Pin Assignment | | | Packing |
|------------------|------------------|---------|----------------|---|---|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| - | 2SD882SG-x-AA3-R | SOT-223 | B | C | E | Tape Reel |
| - | 2SD882SG-x-AB3-R | SOT-89 | B | C | E | Tape Reel |
| 2SD882SL-x-T92-B | 2SD882SG-x-T92-B | TO-92 | E | C | B | Tape Box |
| 2SD882SL-x-T92-K | 2SD882SG-x-T92-K | TO-92 | E | C | B | Bulk |

Note: Pin Assignment: E: Emitter C: Collector B: Base

| | |
|---|--|
| <p>2SD882SG-x-AA3-R</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Green Package</p> | <p>(1) B: Tape Box, K: Bulk, R: Tape Reel (2) AA3: SOT-223, AB3: SOT-89, T92: TO-92 (3) x: refer to Classification of h_{FE2} (4) G: Halogen Free and Lead Free, L: Lead Free</p> |
|---|--|

■ **MARKING**

| SOT-223 | SOT-89 | TO-92 |
|-------------------------------|-------------------------------|--|
| <p>2SD882SG Data Code</p> | <p>2SD882SG Data Code</p> | <p>UTC D882S Rank L: Lead Free G: Halogen Free Data Code</p> |

■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

| PARAMETER | | SYMBOL | RATINGS | UNIT |
|---------------------------|---------|------------------|------------|------|
| Collector-Base Voltage | | V _{CB0} | 40 | V |
| Collector-Emitter Voltage | | V _{CEO} | 30 | V |
| Emitter-Base Voltage | | V _{EBO} | 7 | V |
| Collector Current | DC | I _C | 3 | A |
| | Pulse | I _{CP} | 7 | A |
| Base Current | | I _B | 0.6 | A |
| Power Dissipation | SOT-223 | P _D | 1 | W |
| | SOT-89 | | 0.5 | W |
| | TO-92 | | 0.75 | W |
| Junction Temperature | | T _J | +150 | °C |
| Storage Temperature | | T _{STG} | -55 ~ +150 | °C |

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

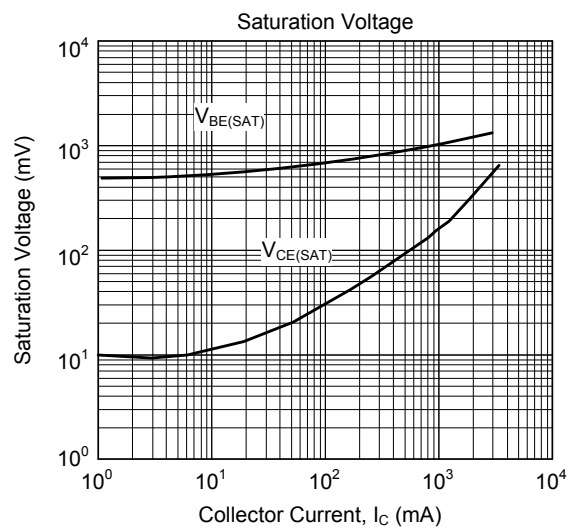
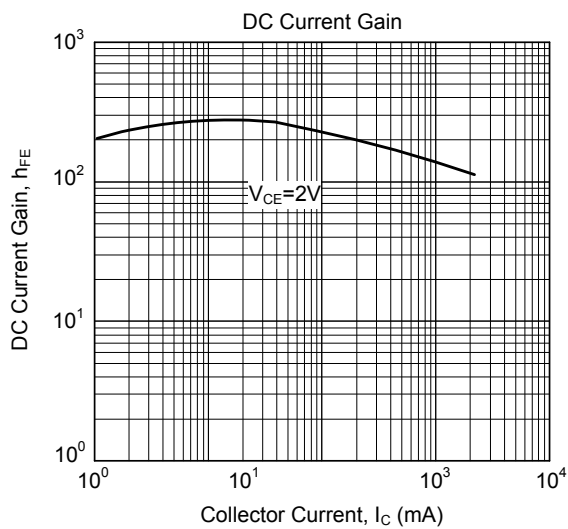
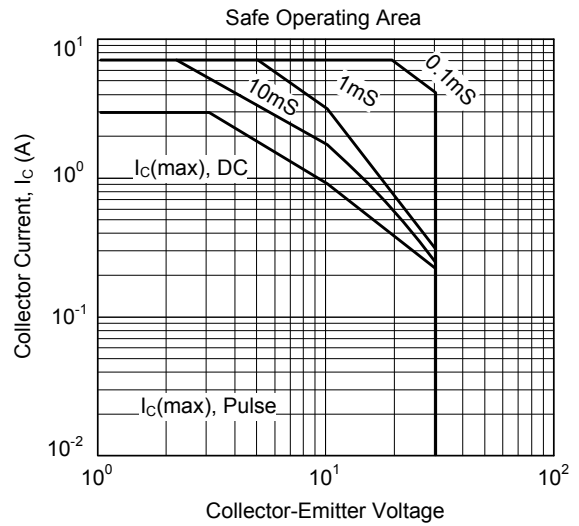
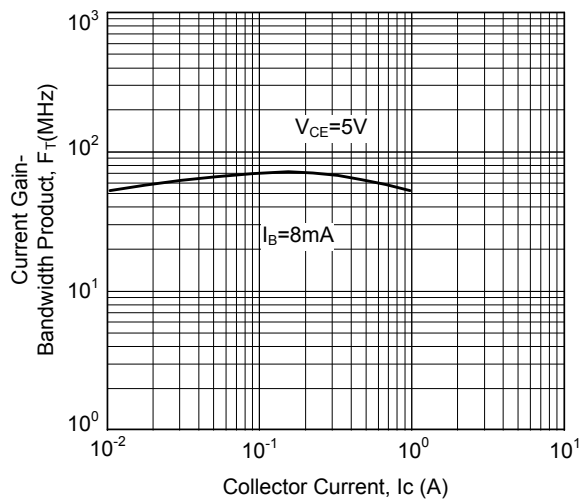
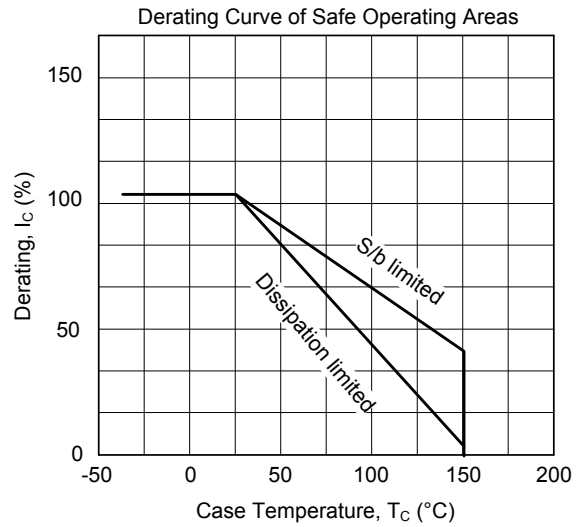
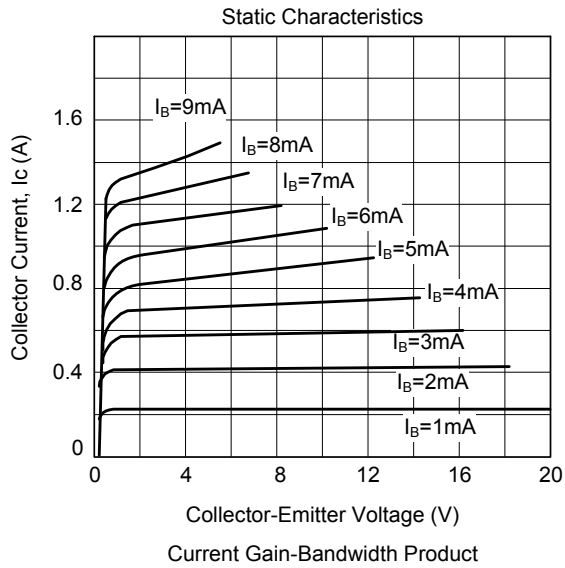
| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------------------|----------------------|---|-----|-----|------|------|
| Collector-Base Breakdown Voltage | BV _{CB0} | I _C =100μA, I _E =0 | 40 | | | V |
| Collector-Emitter Breakdown Voltage | BV _{CEO} | I _C =1mA, I _B =0 | 30 | | | V |
| Emitter-Base Breakdown Voltage | BV _{EBO} | I _E =100μA, I _C =0 | 7 | | | V |
| Collector Cut-off Current | I _{CB0} | V _{CB} =30V, I _E =0 | | | 1000 | nA |
| Emitter Cut-off Current | I _{EBO} | V _{EB} =3V, I _C =0 | | | 1000 | nA |
| DC Current Gain (Note 1) | h _{FE1} | V _{CE} =2V, I _C =20mA | 30 | 200 | | |
| | h _{FE2} | V _{CE} =2V, I _C =1A | 100 | 150 | 400 | |
| Collector-Emitter Saturation Voltage | V _{CE(SAT)} | I _C =2A, I _B =0.2A | | 0.3 | 0.5 | V |
| Base-Emitter Saturation Voltage | V _{BE(SAT)} | I _C =2A, I _B =0.2A | | 1.0 | 2.0 | V |
| Current Gain Bandwidth Product | f _T | V _{CE} =5V, I _C =0.1A | | 80 | | MHz |
| Output Capacitance | C _{OB} | V _{CB} =10V, I _E =0, f=1MHz | | 45 | | pF |

Note: Pulse test: P_W<300μs, Duty Cycle<2%

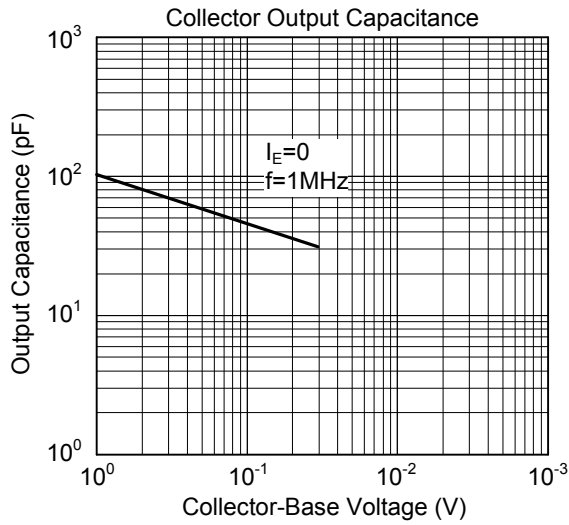
■ CLASSIFICATION OF h_{FE2}

| RANK | Q | P | E |
|-------|---------|---------|---------|
| RANGE | 100-200 | 160-320 | 200-400 |

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.