

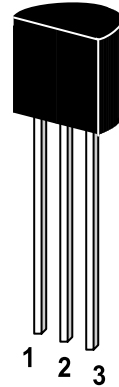
ST 2SD882S-Q/P/E

NPN Silicon Epitaxial Planar Transistor

for the output stage of 0.75W audio, voltage regulator, and relay driver.

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

On special request, these transistors can be manufactured in different pin configurations.

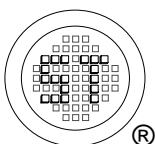


1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

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

| | 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 |
| Power Dissipation | P_{tot} | 750 | mW |
| Junction Temperature | T_{j} | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{S} | -55 to +150 | $^\circ\text{C}$ |



SEMTECH ELECTRONICS LTD.

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ISO/TS 16949 : 2002
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ISO 14001:2004
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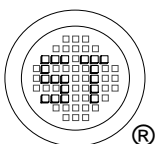
ISO 9001:2000
Certificate No. 0506098

Dated : 21/11/2003

ST 2SD882S-Q/P/E

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

| | | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---------------|------|------|------|---------|
| DC Current Gain at $V_{CE}=2V, I_C=1A$ | Q | h_{FE} | 100 | - | 200 | - |
| | P | h_{FE} | 160 | - | 320 | - |
| | E | h_{FE} | 250 | - | 500 | - |
| at $V_{CE}=2V, I_C=20mA$ | | h_{FE} | 30 | - | - | - |
| Collector Cutoff Current at $V_{CB}=30V$ | | I_{CBO} | - | - | 1 | μA |
| Emitter Cutoff Current at $V_{EB}=3V$ | | I_{EBO} | - | - | 1 | μA |
| Collector to Base Breakdown Voltage at $I_C=100\mu A$ | | $V_{(BR)CBO}$ | 40 | - | - | V |
| Collector to Emitter Breakdown Voltage at $I_C=1mA$ | | $V_{(BR)CEO}$ | 30 | - | - | V |
| Emitter to Base Breakdown Voltage at $I_E=10\mu A$ | | $V_{(BR)EBO}$ | 5 | - | - | V |
| Collector to Emitter Saturation Voltage at $I_C=2A, I_B=200mA$ | | $V_{CE(sat)}$ | - | - | 0.5 | V |
| Base to Emitter Saturation Voltage at $I_C=2A, I_B=200mA$ | | $V_{BE(sat)}$ | - | - | 2 | V |
| Transition Frequency at $V_{CE}=5V, I_C=0.1A, f=100MHz$ | | f_T | - | 90 | - | MHz |
| Collector Output Capacitance at $V_{CB}=10V, f=1MHz$ | | Cob | - | 45 | - | pF |



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