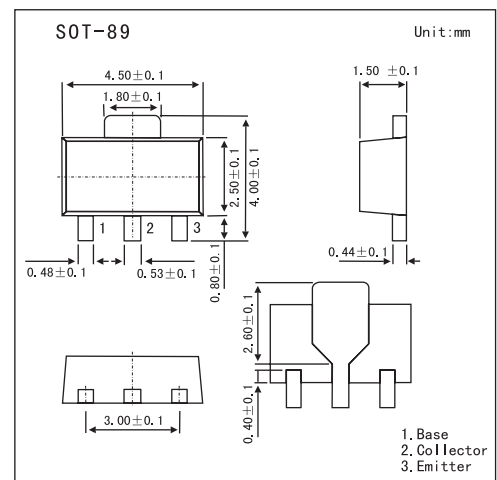


Silicon NPN Epitaxial Planar Type

2SD2210

■ Features

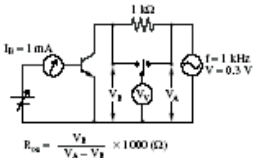
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Low on resistance r_{on} .
- High forward current transfer ratio h_{FE} .

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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|-------------|------------------|
| Collector-base voltage | V_{CBO} | 25 | V |
| Collector-emitter voltage | V_{CEO} | 20 | V |
| Emitter-base voltage | V_{EBO} | 12 | V |
| Collector current | I_C | 1 | A |
| Peak collector current | I_{CP} | 0.5 | A |
| Collector power dissipation | P_C | 1 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

2SD2210

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|---|-----|------|-----|------|
| Collector-base cutoff current | ICBO | V _{CB} = 25 V, I _E = 0 | | | 1 | μA |
| Collector-base voltage | V _{CB0} | I _C = 10 μA, I _E = 0 | 25 | | | V |
| Collector-emitter voltage | V _{CEO} | I _C = 1 mA, I _B = 0 | 20 | | | V |
| Emitter-base voltage | V _{EB0} | I _E = 10 μA, I _C = 0 | 12 | | | V |
| Forward current transfer ratio | h _{FE} | V _{CE} = 2 V, I _C = 0.5 A | 200 | | 800 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = 0.5 A, I _B = 20 mA | | 0.13 | 0.4 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = 0.5 A, I _B = 20 mA | | | 1.2 | V |
| Transition frequency | f _T | V _{CB} = 10 V, I _E = -50 mA, f = 200 MHz | | 200 | | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = 10 V, I _E = 0, f = 1 MHz | | 10 | | pF |
| ON resistance | R _{on} |  | | | 1.0 | Ω |

■ hFE Classification

| Marking | IK | | |
|---------|---------|---------|---------|
| Rank | R | S | T |
| hFE | 200~350 | 300~500 | 400~800 |