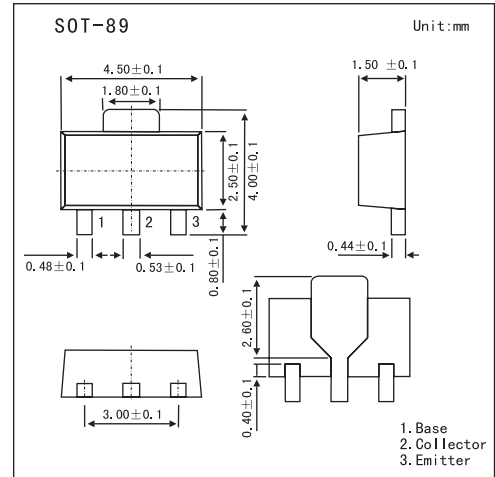


Low Frequency Transistor

2SC4115

■ Features

- Low $V_{CE(sat)}$: $V_{CE(sat)} = 0.2V$ (Typ.)
 $I_C / I_B = 2A / 0.1A$
- NPN silicon transistor



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

| Parameter | Symbol | Rating | Unit |
|----------------------------|-------------|------------|------------|
| collector-base voltage | V_{CBO} | 40 | V |
| collector-emitter voltage | V_{CEO} | 20 | V |
| emitter-base voltage | V_{EBO} | 6 | V |
| collector current | I_C | 3 | A |
| | $I_{CP} *1$ | 5 | A |
| CollectorPower Dissipation | P_C | 0.3 | W |
| Junction Temperature | T_J | 150 | $^\circ C$ |
| storage Temperature | T_{stg} | -55 to 150 | $^\circ C$ |

*1 Single pulse $p_w=10ms$

■ Electrical Characteristics $T_a = 25^\circ C$

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|---------------------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage | V_{CBO} | $I_C=50\mu A$ | 40 | | | V |
| collector-emitter breakdown voltage | V_{CEO} | $I_C=1mA$ | 20 | | | V |
| Emitter-base breakdown voltage | V_{EBO} | $I_E=50\mu A$ | 6 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB}=30V$ | | | 0.1 | μA |
| Emitter outoff current | I_{EBO} | $V_{EB}=5V$ | | | 0.1 | μA |
| Collector emitter saturation voltage | $V_{CE(sat)}$ | $I_C/I_B=2A/0.1A$ | | 0.2 | 0.5 | V |
| DC current gain | h_{FE} | $V_{CE}=2V, I_C=0.1A$ | 120 | | 560 | |
| Output capacitance | C_{ob} | $V_{CB}=10V, I_E=0A, f=1MHz$ | | 25 | | pF |
| Transition frequency | f_T | $V_{CE}=2V, I_E=0.5A, f=100MHz$ | | 290 | | MHz |

■ h_{FE} Classification

| Rank | Q | R | S |
|----------|-----------|-----------|-----------|
| h_{FE} | 120 ~ 270 | 180 ~ 390 | 270 ~ 560 |