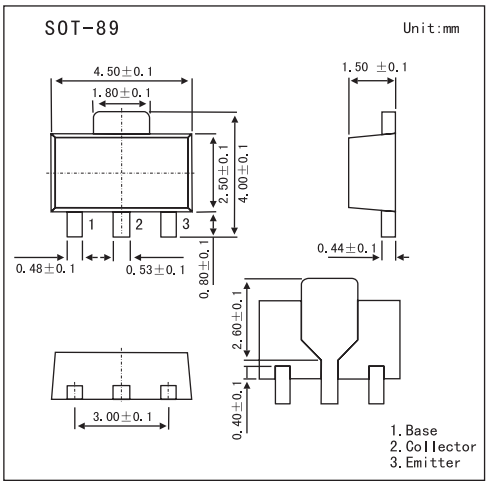
TY Semicondutor®

**Product specification**

# 2SC3439




## ■ Features

- High $h_{FE}$=400 to 1800.
- High collector current (Icm=3A,Ic=1.5A)
- High collector dissipation Pc=500mW
- Low $V_{CE(sat)}$ $V_{CE(sat)}$=0.2V typ(@Ic=1a,$I_B$=20mA)
- Small package for mounting.

## ■ Absolute Maximum Ratings Ta = 25℃

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-base voltage | $V_{CBO}$ | 30 | V |
| Emitter-base voltage | $V_{EBO}$ | 6 | V |
| Collector-emitter voltage | $V_{CEO}$ | 25 | V |
| Peak collector current | $I_{CM}$ | 3 | A |
| Collector current | $I_C$ | 1.5 | A |
| Collector dissipation (Ta=25℃) | $P_C$ | 500 | mW |
| Jumction temperature | $T_j$ | 150 | ℃ |
| Storage temperature | $T_{stg}$ | -55 to +150 | ℃ |

## ■ Electrical Characteristics Ta = 25℃

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Colllector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C$=10μA,$I_E$=0 | 30 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E$=10μA,$I_C$=0 | 6 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C$=1mA,$R_{BE}$=∞ | 25 | | | V |
| Collector cutoff current | $I_{CBO}$ | $V_{CB}$=20V,$I_E$=0 | | | 0.1 | μA |
| Emitter cutoff current | $I_{EBO}$ | $V_{EB}$=2V,$I_C$=0 | | | 0.1 | μA |
| DC current gain | $h_{FE}$ | $V_{CE}$=6V,$I_C$=500mA | 400 | | 1800 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C$=1A,$I_B$=20mA | | 0.25 | 0.5 | V |
| Gain bandwidth product | $f_T$ | $V_{CE}$=10V,$I_E$=-10mA | | 130 | | MHz |
| Collector output capacitance | Cob | $V_{CB}$=10V,$I_E$=0,f=1MHz | | 17 | | pF |

## ■ $h_{FE}$ Classification

| Marking | HG | HH | HJ |
|---|---|---|---|
| hFE | 400～800 | 600～1200 | 900～1800 |