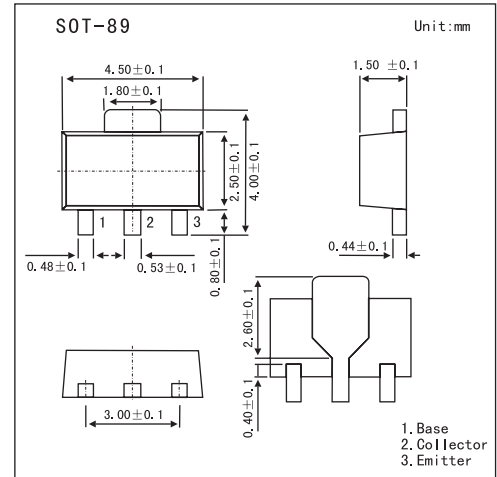


## NPN Silicon Epitaxia

## 2SC3618

## ■ Features

- World standard miniature package.

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

| Parameter                  | Symbol    | Rating      | Unit             |
|----------------------------|-----------|-------------|------------------|
| Collector-base voltage     | $V_{CB0}$ | 25          | V                |
| Collector-emitter voltage  | $V_{CEO}$ | 25          | V                |
| Emitter-base voltage       | $V_{EBO}$ | 15          | V                |
| Collector current          | $I_C$     | 0.7         | A                |
| Collector current (Pulse)* | $I_{CP}$  | 1.0         | A                |
| Total power dissipation    | $P_T$     | 2.0         | W                |
| Junction temperature       | $T_j$     | 150         | $^\circ\text{C}$ |
| Storage temperature        | $T_{stg}$ | -55 to +150 | $^\circ\text{C}$ |

\*  $PW \leq 10\text{ms}$ , duty cycle  $\leq 50\%$ .

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

| Parameter                              | Symbol        | Testconditions  | Min | Typ  | Max  | Unit |
|--|---------------|---|-----|------|------|------|
| Collector cutoff current               | $I_{CBO}$     | $V_{CB} = 25\text{V}$ , $I_E = 0$                       |     |      | 100  | nA   |
| Emitter cutoff current                 | $I_{EBO}$     | $V_{EB} = 10\text{V}$ , $I_C = 0$                       |     |      | 100  | nA   |
| DC current gain *                      | $h_{FE}$      | $V_{CE} = 2.0\text{V}$ , $I_C = 300\text{mA}$           | 800 |      | 3200 |      |
| Collector-emitter saturation voltage * | $V_{CE(sat)}$ | $I_C = 300\text{mA}$ , $I_B = 3.0\text{mA}$             |     | 0.16 | 0.3  | V    |
| Base-emitter saturation voltage *      | $V_{BE(sat)}$ | $I_C = 300\text{mA}$ , $I_B = 3.0\text{mA}$             |     | 0.75 | 1.2  | V    |
| Gain bandwidth product                 | $f_T$         | $V_{CE} = 5.0\text{V}$ , $I_E = -300\text{mA}$          | 150 | 250  |      | MHz  |
| Output capacitance                     | $C_{ob}$      | $V_{CB} = 10\text{V}$ , $I_E = 0$ , $f = 1.0\text{MHz}$ |     | 10   |      | pF   |

\*.  $PW \leq 350\mu\text{s}$ , duty cycle  $\leq 2\%$

■  $h_{FE}$  Classification

| Marking  | UM       | UL        | UK        |
|----------|----------|-----------|-----------|
| $h_{FE}$ | 800~1600 | 1200~2400 | 2000~3200 |