

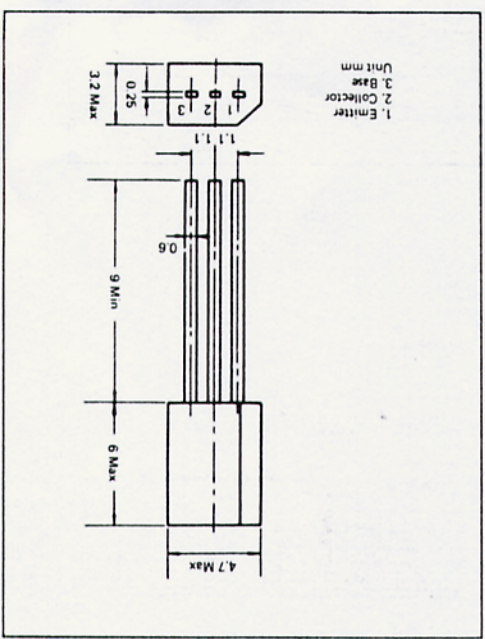
# 2SC1636

Silicon NPN LEC Transistor

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- $h_{FE}$  500-2000
- $V_{BE} \geq 25V$
- $V_{CE(sat)} \leq 75mV$
- Industrial Use: 2SC1981 (Can Type)

絶対最大定格 Absolute Maximum Ratings  $T_a = 25^\circ C$

| Characteristics              | Symbol    | 2SC1636    |
|------------------------------|-----------|------------|
| Collector-to-Base Voltage    | $V_{CBO}$ | 50V        |
| Collector-to-Emitter Voltage | $V_{CEO}$ | 25V        |
| Emitter-to-Base Voltage      | $V_{EBO}$ | 25V        |
| Collector Current            | $I_C$     | 20 mA      |
| Emitter Current              | $I_E$     | -20 mA     |
| Collector Power Dissipation  | $P_C$     | 300 mW     |
| Junction Temperature         | $T_j$     | 120°C      |
| Storage Temperature          | $T_{stg}$ | -50-+120°C |



電氣的特性 Electrical Characteristics  $T_a = 25^\circ C$

| Characteristics                         | Symbol        | Conditions   | Min. | Typ. | Max. | Unit    |
|---|---------------|--|------|------|------|---------|
| Collector Cutoff Current                | $I_{CBO}$     | $V_{CB} = 50V, I_E = 0$                                  |      | 0.2  |      | $\mu A$ |
| Emitter Cutoff Current                  | $I_{EBO}$     | $V_{EB} = 25V, I_C = 0$                                  |      | 0.2  |      | $\mu A$ |
| Emitter-to-Base Voltage                 | $V_{EBO}$     | $I_E = 0.1 mA, I_C = 0$                                  | 25   |      |      | V       |
| Collector-to-Emitter Sustaining Voltage | $V_{CE(sus)}$ | $I_C = 2 mA$   | 25   |      |      | V       |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 10 mA, I_B = 1 mA$                                |      | 75   |      | mV      |
| Base-to-Emitter Saturation Voltage      | $V_{BE(sat)}$ |  |      | 0.8  |      | V       |
| DC Current Gain                         | $h_{FE}$      | $I_C = 1 mA, V_{CE} = 3V$                                | 500  |      | 2000 |         |
| Gain Bandwidth Product                  | $f_T$         | $V_{CE} = 6V, I_E = -2 mA$                               | 30   |      |      | MHz     |
| Output Capacitance                      | $C_{ob}$      | $V_{CB} = 6V, I_E = 0, f = 1 MHz$                        | 4    |      | 7    | pF      |
| Noise Figure                            | NF            | $I_C = 0.1 mA, V_{CE} = 6V, f = 10 Hz, R_g = 10 k\Omega$ | 2    |      |      | dB      |
| Delay Time                              | $t_d$         | $V_{CC} = 10V, I_C = 30 mA$                              | 30   |      |      | ns      |
| Rise Time                               | $t_r$         |  | 75   |      |      | ns      |
| Storage Time                            | $t_{stg}$     | $I_{B1} = -I_{B2} = 3 mA$                                | 600  |      |      | ns      |
| Fall Time                               | $t_f$         | Fig. 1   | 130  |      |      | ns      |

