



4126

NPN EPITAXIAL SILICON TRANSISTOR

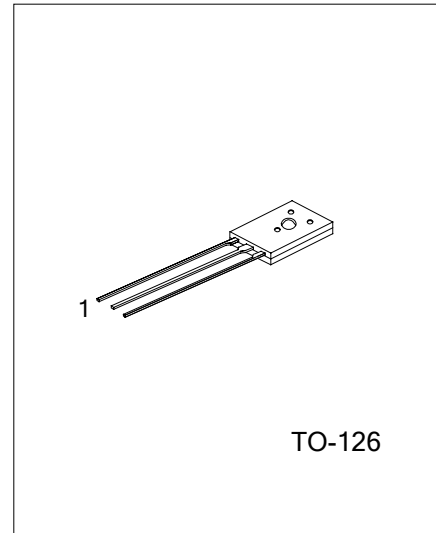
HIGH FREQUENCY SWITCHING TRANSISTORS FOR BALLASTERS

■ DESCRIPTION

UTC 4126 is designed for specially used for electronic ballasters in 110VAC environment.

■ FEATURES

- * Triple diffused technology.
- * High switching speed



*Pb-free plating product number: 4126L

■ PIN CONFIGURATION

| PIN NO. | PIN NAME |
|---------|-----------|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |

■ ORDERING INFORMATION

| Order Number | | Package | Packing |
|--------------|-------------|---------|---------|
| Normal | Lead free | | |
| 4126-T60-T | 4126L-T60-T | TO-126 | Tube |

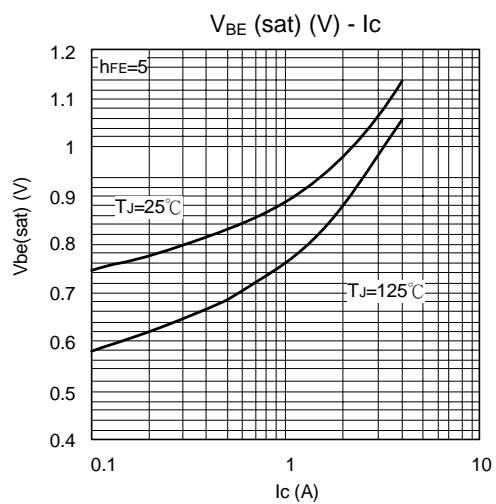
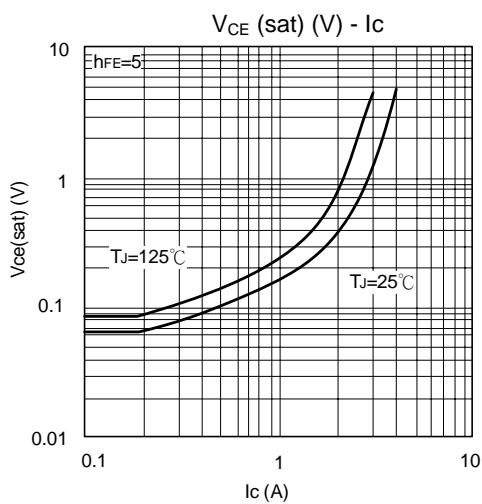
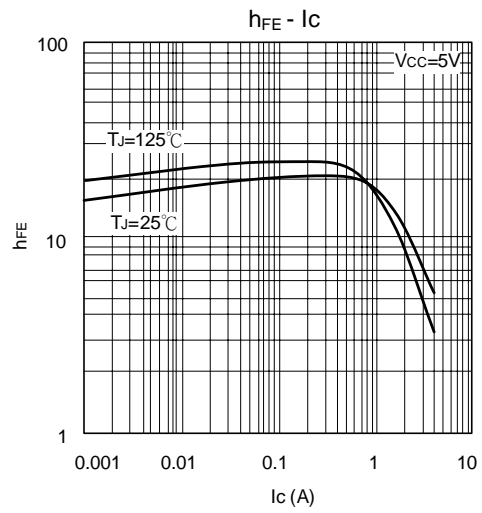
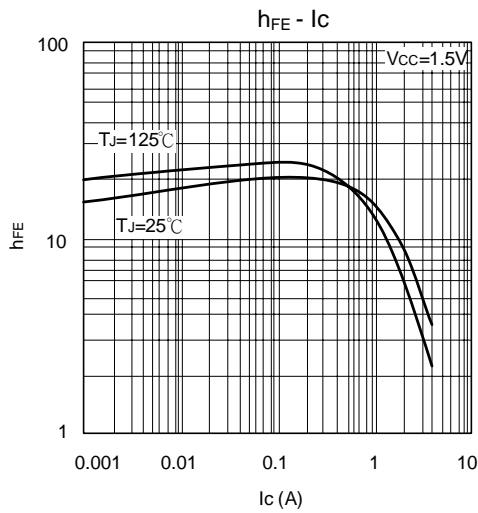
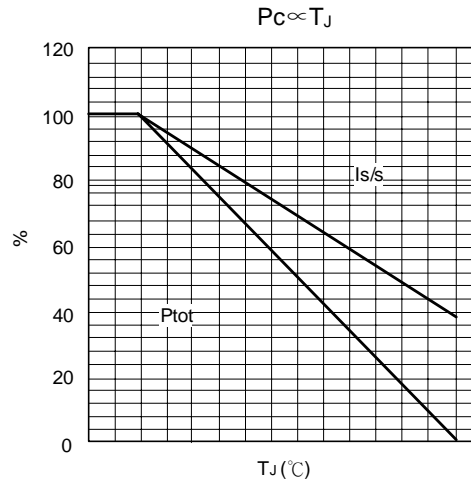
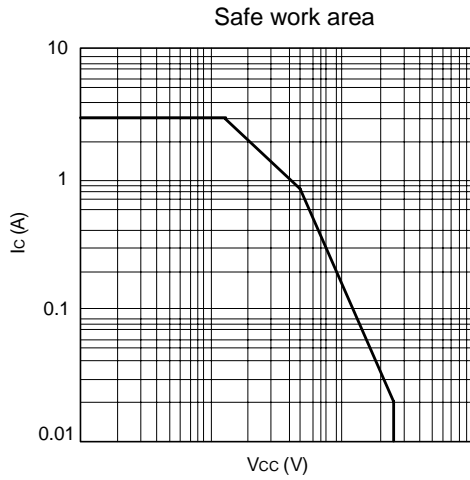
■ ABSOLUTE MAXIMUM RATINGS ($T_c = 25^\circ\text{C}$)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|------------------------------------|-----------|------------|------------------|
| Collector-Base Voltage | V_{CBO} | 400 | V |
| Collector-Emitter Voltage | V_{CEO} | 200 | V |
| Collector-Emitter Voltage | V_{EBO} | 7 | V |
| Peak Collector Current | I_C | 3 | A |
| Peak Collector Consume Dissipation | P_D | 40 | W |
| Peak Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -40 ~ +150 | $^\circ\text{C}$ |

■ ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------------------|----------------|---|-----|-----|-----|---------------|
| Collector-Emitter Maintenance Voltage | $V_{CEO(SUS)}$ | $I_C = 10\text{mA}, I_B = 0$ | 200 | | | V |
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = 1\text{mA}, I_B = 0$ | 400 | | | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = 1\text{mA}, I_C = 0$ | 7 | | | V |
| Collector-Base Cutoff Current | I_{CBO} | $V_{CB} = 400\text{V}, I_E = 0$ | | | 100 | μA |
| Collector-Emitter Cutoff Current | I_{CEO} | $V_{CE} = 200\text{V}, I_B = 0$ | | | 100 | μA |
| Emitter-Base Cutoff Current | I_{EBO} | $V_{EB} = 7\text{V}, I_C = 0$ | | | 100 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE} = 10\text{V}, I_C = 0.5\text{A}$ | 10 | | 60 | |
| | $h_{FE(2)}$ | $V_{CE} = 5\text{V}, I_C = 3\text{A}$ | 5 | | 40 | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C = 0.5\text{A}, I_B = 0.1\text{A}$ | | | 0.5 | V |
| | | $I_C = 2\text{A}, I_B = 0.5\text{A}$ | | | 1.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C = 1\text{A}, I_B = 0.25\text{A}$ | | | 1.2 | V |
| Fall Time | t_f | $I_C = 1\text{A}, I_{B1} = -I_{B2} = 0.2\text{A}$ | | | 0.7 | μs |
| Storage Time | t_s | $I_C = 1\text{A}, I_{B1} = -I_{B2} = 0.2\text{A}$ | | | 4 | μs |
| Feature Frequency | f_T | $V_{CE} = 10\text{V}, I_C = 0.1\text{A}$ | 4 | | | MHz |

■ TYPICAL CHARACTERISTICS



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