

KSE340

High Voltage General Purpose Applications

- High Collector-Emitter Breakdown Voltage
- Suitable for Transformer
- Complement to KSE350



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|--|------------|------------------|
| V_{CBO} | Collector-Base Voltage | 300 | V |
| V_{CEO} | Collector-Emitter Voltage | 300 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current | 500 | mA |
| P_C | Collector Dissipation ($T_C=25^\circ\text{C}$) | 20 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{STG} | Storage Temperature | - 65 ~ 150 | $^\circ\text{C}$ |

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|------------|-------------------------------------|--|------|------|---------------|
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C = 1\text{mA}, I_B = 0$ | 300 | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB} = 300\text{V}, I_E = 0$ | | 100 | μA |
| I_{EBO} | Emitter Cut-off Current | $V_{BE} = 3\text{V}, I_C = 0$ | | 100 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = 10\text{V}, I_C = 50\text{mA}$ | 30 | 240 | |

Typical Characteristics

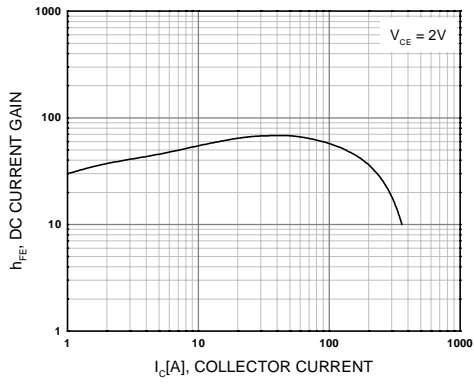


Figure 1. DC current Gain

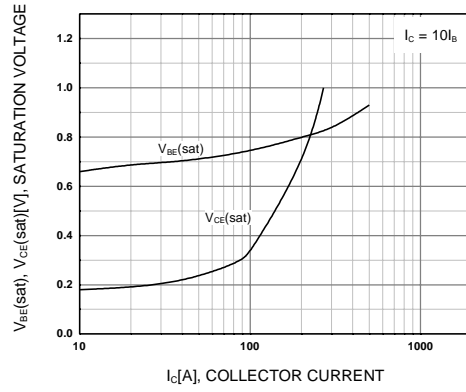


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

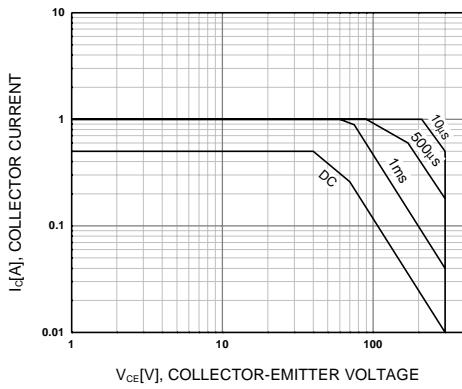


Figure 3. Safe Operating Area

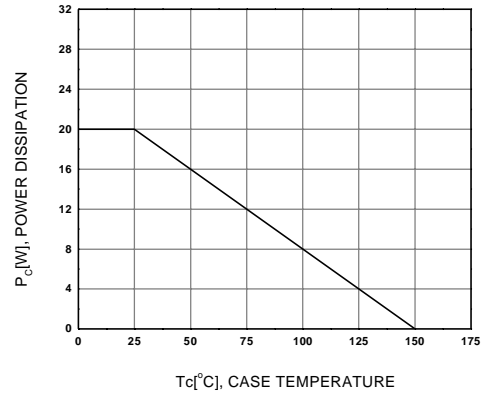


Figure 4. Power Derating

Package Dimensions

TO-126



Dimensions in Millimeters

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| E ² CMOS™ | PowerTrench® | VCX™ |
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