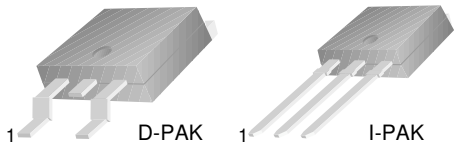
FAIRCHILD
SEMICONDUCTOR®

# KSH340

## High Voltage Power Transistors
## D-PAK for Surface Mount Applications

- Lead Formed for Surface Mount Applications (No Suffix)
- Straight Lead (I-PAK, "- I" Suffix)




1.Base 2.Collector 3.Emitter

## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_C$=25°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 | 3 | V |
| $I_C$ | Collector Current (DC) | 0.5 | A |
| $I_{CP}$ | Collector Current (Pulse) | 0.75 | A |
| $P_C$ | Collector Dissipation ($T_C$=25°C) | 15 | W |
| | Collector Dissipation ($T_a$=25°C) | 1.56 | W |
| $T_J$ | Junction Temperature | 150 | °C |
| $T_{STG}$ | Storage Temperature | - 65 ~ 150 | °C |

### Electrical Characteristics $T_C$=25°C unless otherwise noted

| Symbol | Parameter | Test Condition | Min. | Max. | Units |
|---|---|---|---|---|---|
| $V_{CEO}$(sus) | * Collector Emitter Sustaining Voltage | $I_C$ = 1mA, $I_B$ = 0 | 300 | | V |
| $I_{CEO}$ | Collector Cut-off Current | $V_{CB}$ = 300V, $I_E$ =0 | | 0.1 | mA |
| $I_{EBO}$ | Emitter Cut-off Current | $V_{EB}$ = 3V, $I_C$ = 0 | | 0.1 | mA |
| $h_{FE}$ | * DC Current Gain | $V_{CE}$ = 10V, $I_C$ = 50mA | 30 | 240 | |

* Pulse Test: PW≤300μs, Duty Cycle≤2%

# Typical Characteristics

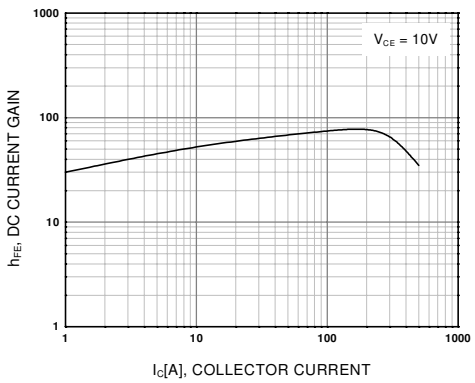



**Figure 1. DC current Gain**

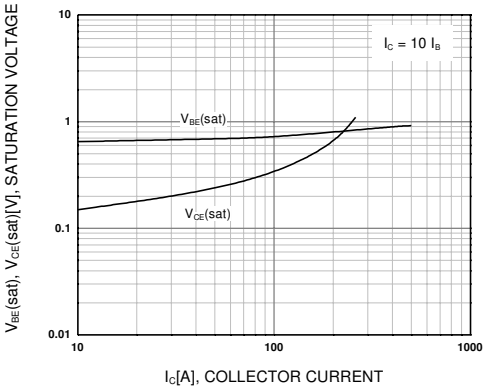



**Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage**

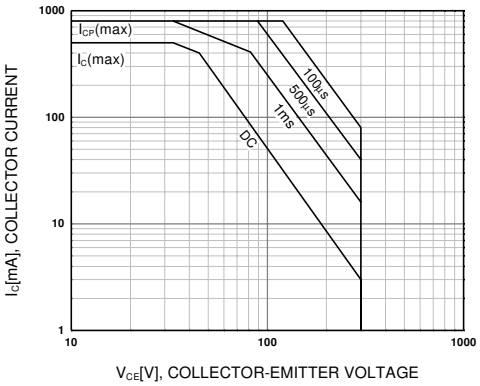



**Figure 3. Safe Operating Area**

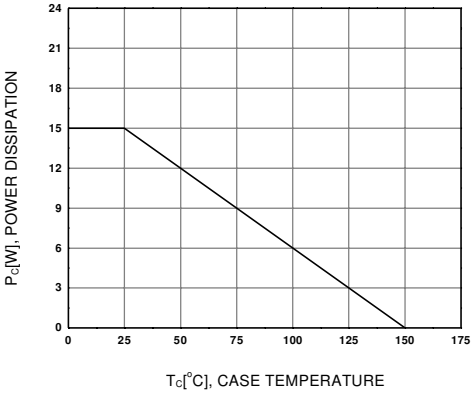
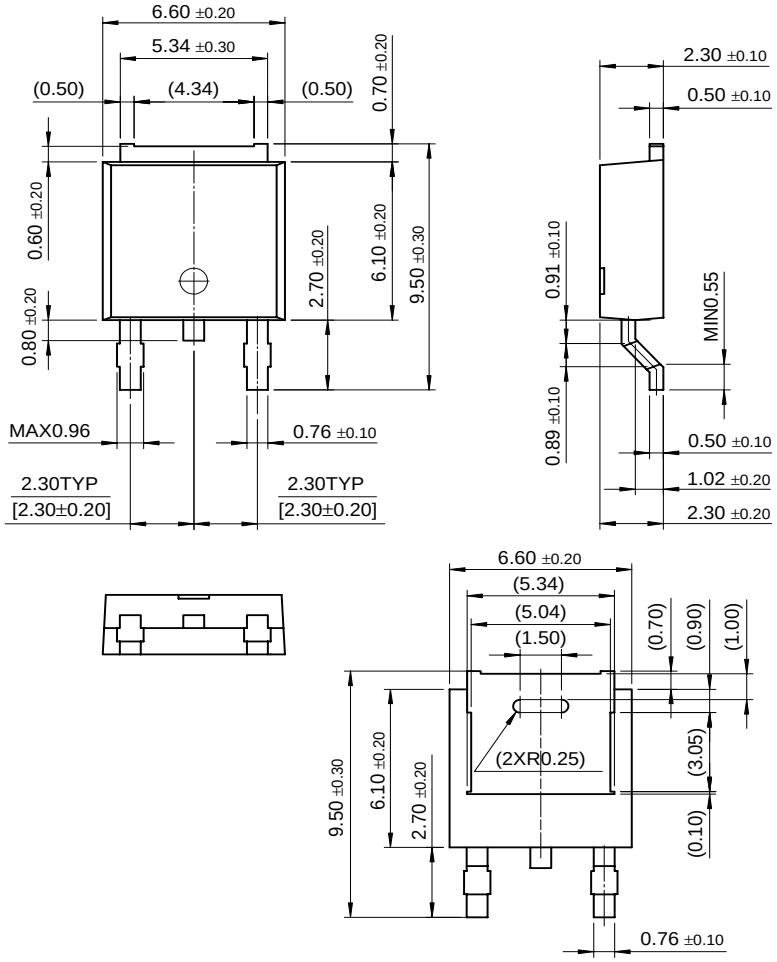



**Figure 4. Power Derating**

## Package Dimensions

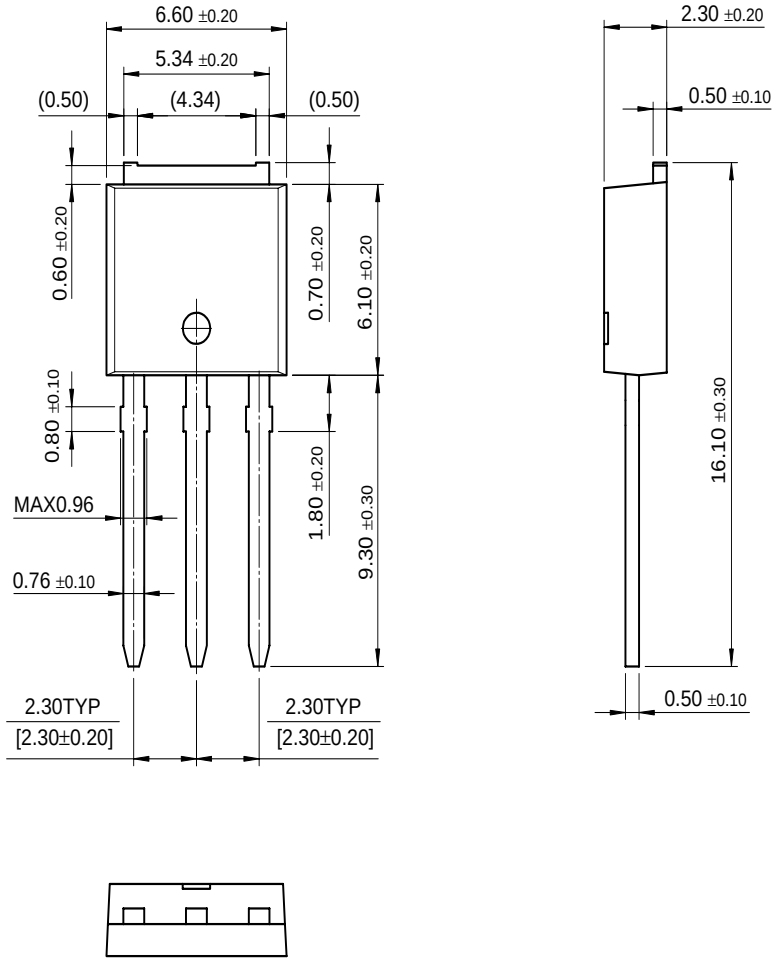
# D-PAK




Dimensions in Millimeters

## Package Dimensions (Continued)

# I-PAK




Dimensions in Millimeters

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